MEMORANDUM

TO: Lisa Vest
Hearing Officer

THROUGH: David F. Fees, P.E.
Division Director

Angela D. Marconi, P.E.
Program Administrator

FROM: Lindsay Rennie
Environmental Engineer

SUBJECT: Report on the Public Hearing for Delaware City Refining Company's Title V Permit Renewal

"Proposed" Permit: AQM-003/00016 – Part 1 (Renewal 3)
AQM-003/00016 – Part 2 (Renewal 2)
AQM-003/00016 – Part 3 (Renewal 3)

DATE: March 30, 2021

Background

The Delaware City Refinery (DCR), NAICS Code 32411, is located on a 5,000-acre tract in Delaware City, between US Route 13 and Delaware Route 9. The DCR has the potential to emit greater than 25 tons per year of nitrogen oxides (NO_X), and volatile organic compounds (VOCs), greater than 100 tons per year of carbon monoxide (CO), and sulfur dioxide (SO_2), and greater than 25 tons per year of hazardous air pollutants in the aggregate (HAPs) as listed in Section 112(b) of the Clean Air Act Amendments of 1990. Therefore, the DCR is subject to the requirements of 7 **DE Admin. Code** 1130.

The DCR was owned by Star Enterprises at the time the initial Title V application was submitted to the Department. On July 1, 1998, Shell Oil Products (Shell), Saudi Refining, Inc., and Texaco Inc. formed Motiva, combining the major elements of Shell's and Star's eastern and southern refining and marketing businesses. The ownership of Star Enterprise was transferred to Motiva LLC in October of 1998. In October 2001, Texaco Inc. divested itself of its share in the Company. Motiva sold the DCR to The Premcor Refining Group, Inc. on May 1, 2004. On September 1, 2005, Premcor, in turn, was acquired as a wholly owned subsidiary by The Valero Energy Corporation (Valero). The Delaware City Refining Company (DCRC), a subsidiary of PBF Energy acquired the DCR from Valero on May 31, 2010. DCRC was issued a 7 **DE Admin. Code 1130** Title V Operation Permit on April 5, 2011 which was renewed on May 28, 2015 for an additional 5 years and was set to expire on May 27, 2020. DCRC submitted a timely renewal application and it able to operate under an application shield until a final renewal permit is issued. The permit has undergone several revisions to incorporate permit actions that occurred in the refinery, and federal requirements as they became applicable.

This renewal incorporates applicable requirements of the Regulation 1102 permits for the Ethanol Marketing Project; elimination of the maximum data capture requirements from the

Crude NOx CEMS; incorporation of requirements contained in the Consent Decree "United States of America et al., v. Motiva Enterprises LLC, No. H-01-0978"; replacement of the EPA Tanks 4.09 requirement with the Tanks ESP Pro Version; modification of short-term NO_X limits per the July 2019 Settlement Agreement; and correction of typographical errors and various reformatting.

Given below are the Division of Air Quality's (AQ) responses to the comments made at the public hearing held on July 14, 2020 and submitted through the public comment period ending July 31, 2020 regarding the Delaware City Refining Company's (DCRC) Title V Permit Renewal.

Review of Application and Public Hearing

The Division of Air Quality issued a public notice that it had developed draft permits for the Title V Permit Renewal on Sunday, April 26, 2020 in the Sunday News Journal and the Delaware State News. A public hearing was requested and held on July 14, 2020 in a virtual format to facilitate comments on AQ's draft permit. On behalf of DNREC, Hearing Officer, Ms. Lisa Vest, conducted the public hearing. Prior to the public comments, a Division of Air Quality Environmental Engineer, Ms. Lindsay Rennie submitted documents to become part of the hearing record. The applicant representative, Mr. Larry Boyd, Environmental Manger spoke on behalf of DCRC, presenting background on the renewal application. Due to the virtual nature of the hearing, only written comments were accepted through the duration of the public comment period ending Friday, July 31, 2020.

The public hearing transcripts, with comments received during the public hearings, were prepared by Wilcox & Fetzer, Ltd and was submitted to the Department on July 17, 2020.

Comments and DAQ Response

The comments in the table below may edited for clarity and/or brevity. Verbatim statements can be found in the relevant letters submitted as part of the hearing record.

Table 1 contains comments presented by Patton Dycus on behalf of several environmental groups submitted as part of the hearing request. Table 2 contains comments jointly submitted by the environmental groups submitted after the public hearing. Table 3 contains comments submitted by Amy Roe after the public hearing. Table 4 contains comments submitted that are not technical in nature.

Table 1: PATTON DYCUS ON BEHALF OF DELAWARE AUDUBON SOCIETY, SIERRA CLUB, ENVIRONMENTAL INTEGRITY PROJECT, AND EARTH JUSTICE: initial comments submitted with the public hearing request.

General Public Comment Summary	DAQ Responses
3. Environmental Justice Concerns And The Refinery's History Of SSM Releases And Compliance Problems Mandate Increased Focus By DNREC To Ensure That The Permit's Provisions Comply With Title V Requirements (pg 4) Over recent years, the Delaware City Refinery has caused large releases of air pollution—particularly during SSM periods, and often at the refinery's fluid coking unit ("FCU") and fluidized catalytic cracking unit ("FCCU). • Two separate incidents at the FCU in April 2015 resulted in the release of 310 tons—and then over 260 tons—of sulfur dioxide ("SO2"). • In late January through early February 2016, a power outage at the refinery caused the unpermitted release of 105 tons of SO2. • In August 2018, the FCCU's CO boiler tripped offline, causing the release of 82 tons of CO. • In September 2018, a boiler trip caused the FCU to release almost 100 tons of carbon monoxide ("CO"), 21 tons of SO2, 310 lbs of hydrogen cyanide ("HCN"), and over a ton of ammonia.	The corrective actions for the referenced release events are conducted immediately and units are typically brought back into compliance in a matter of hours. None of the emission release incidents have resulted in an exceedance of unit-specific annual limits or facility-wide annual limits. For the incidents listed DCRC received Notices of Violation (NOV) as the initial enforcement action. Each incident that received an NOV was levied a fine either in the Administrative Penalty Assessment and Secretary's Order (2019-A-0043) or the July 11, 2019 Settlement Agreement. In the case of failed stack tests, the DCR is considered out of compliance until a stack test demonstrating compliance has been conducted. Seven DE Admin. Code 1130 describes the

• In January 2019, a trip at the FCU's CO boiler caused the release of 30 tons SO2, 170 tons CO, 6 tons hydrogen sulfide, 2.5 tons of ammonia, 600 lbs HCN, and 90 lbs of carbonyl sulfide. • On May 16, 2020, a compressor breakdown caused the release of two tons of SO2. Relatedly, EPA's ECHO page for the refinery lists it as a "High Priority Violator" for each of the past nine quarters, and from formal enforcement actions over the past five years, the refinery has been subject to $1,017,968 in penalties for Clean Air Act violations. And the page lists 11 failed stack tests at the refinery from 2017 forward. It is unclear what corrective action, if any, DNREC has required Delaware City Refining Company to take to remedy these past violations. It is also unclear how DNREC has reviewed or addressed these compliance concerns in the draft Title V permit. These are just a few examples of the large releases of air pollution that the refinery has experienced in the past, demonstrating that DNREC must require stronger terms and conditions in the permit to assure compliance with Clean Air Act requirements. The Act requires DNREC both to include monitoring and reporting sufficient to assure compliance with all applicable requirements, and also requires DNREC to address and include a compliance schedule for any provisions for which DCRC is currently out of compliance. Currently all the draft permit states is that DCRC is currently "not under a compliance schedule." This fails to demonstrate that DNREC has met its responsibility to determine whether the permit should include a compliance schedule or how EPA could have decided none is needed in view of the significant concerns and recent enforcement matters shown in the facility's ECHO record.	requirements for the inclusion of a compliance schedule in a Title V permit. Condition 6.3.3 requires a "schedule of compliance to the extent required under 5.4.8.3…" Condition 5.4.8.3 describes the compliance schedule as required information in a permit application "for sources that are not in compliance with all applicable requirements at the time of permit issuance…". Similarly, Part 70.5(8)(iii)(C) requires a compliance schedule be included in a permit application "for sources that are not in compliance with all applicable requirements at the time of permit issuance." At the time of the renewal application, the facility units were not out of compliance. DCRC submitted, as part of its application, the compliance status of those units affected by requested permit changes and indicated that each were in in compliance. Additionally, the DCR submits, and DNREC reviews, semi-annual compliance certifications that list each permit term and its compliance status. The Compliance Certification submitted for the semi-annual period between July 1, 2018 and December 31, 2018 (the last full semi-annual period prior to the application submittal) and January 1, 2019 and June 30, 2019 (the semi-annual period during which the application was submitted) did not identify any unresolved compliance issues with the exception of PM emissions due to failed stack tests from the Coke Handling Complex for which a corrective action plan was previously developed and

	submitted, and has since been completed. The purpose of the monitoring and reporting conditions is to identify periods and severity of non-compliance. The violations are not due to a lack of monitoring and reporting conditions, instead the number of NOVs indicate that those monitoring conditions are correctly identifying violations as they occur, and the generally short duration of the incidents suggest that the appropriate corrective actions are conducted. The AQ prioritizes improvement of the ambient air quality through reduction in air emissions of normal operation. Because these normal operation periods represent the vast majority of operating time and the bulk of any emissions, reduction of emissions in those areas represent the greatest potential for improvement in air quality. AQ continues to require DCRC to employ control devices, or equivalent methods, to reduce air emissions. The release events are handled through enforcement actions beginning with NOVs and culminating with fines and/or improvement projects.
I. DNREC Must Withdraw Its Initial Permit Submission To EPA And Respond To Comments Before Submitting A Revised Permit To EPA. (pg 9) DNREC'S public notice describes the permit at issue as a "draft/proposed" permit and states that the permit has been submitted to EPA for "concurrent processing." EPA's Title V regulations make clear that EPA's 45-day review period cannot run concurrent with the public comment period when (as here) significant comments are submitted on a draft permit as part of the public participation process:	40 C.F.R. § 70.8(a)(1)(ii) outlines the process for concurrent permit review by the EPA and the public. Specifically, § 70.8(a)(1)(ii) allows States to submit a proposed permit before completion of the public participation period. If significant comments are received, the State is required to (1) make any revisions to the permit and permit record necessary to address such public comments, (2) include a

If the permitting authority receives significant comment on the draft permit during the public participation process, but after the submission of the proposed permit to the Administrator, the Administrator will no longer consider the submitted proposed permit as a permit proposed to be issued under section 505 of the Act. In such instances, the permitting authority must make any revisions to the permit and permit record necessary to address such public comments, including preparation of a written response to comments (which must include a written response to all significant comments raised during the public participation process on the draft permit and recorded under 70.7(h)(5) of this part), and must submit the proposed permit and the supporting material required under 70.8(a)(1)(i) of this part [which include the response to comments] … to the Administrator after the public comment period has closed. This later submitted permit will then be considered as a permit proposed to be issued under section 505 of the Act, and the Administrator's review period for the proposed permit will not begin until all required materials have been received by the EPA. 40 C.F.R. § 70.8(a)(1)(ii) (emphasis added). Thus, where a public hearing is requested pursuant to the public participation provision of § 70.7(h), or significant comments are provided in writing, DNREC may not move forward with EPA review without first addressing the written comments and comments from the hearing. EPA added: "The EPA expects that the permitting authority would withdraw the initial permit submission if significant comments are received during the public participation process on a draft permit that has been submitted for concurrent review. If EPA later finds that a significant comment was received and the initial permit submission is not withdrawn, the permit submission will no longer be considered a proposed permit." *Id.* at 6441 n.11 (emphasis added). The below comments are plainly significant: they point out that the draft Title V permit includes unlawful provisions that would affect the public's and EPA's ability to enforce Delaware City Refining Company's noncompliance with federally enforceable emission limits occurring during	written response to comments (i.e. this Technical Response Memorandum), and (3) submit the revised permit as a proposed permit, and any supporting material. While the *Final Rule for Revisions to the Petition Provision of the Title V Program* include a footnote which provides EPA's expectation that a permitting authority would withdraw the initial permit submission if significant comments are received, the Part 70 regulations make clear that "[t]his later submitted permit will then be considered as a permit proposed to be issued…" and further makes no mention of a requirement to supply a formal written withdrawal in conjunction with the later submitted permit. Following the public hearing period, and subsequent Secretary's Order, AQ will submit the proposed permit, and all applicable supporting documentation, including this Technical Response Memorandum, to EPA for a 45-day review.

SSM periods—and also point out how the permit unlawfully relaxes federally enforceable limits during these periods. *See* 85 Fed. Reg. 6431, 6436 (Feb. 5, 2020) ("Significant comments … include, but are not limited to, comments that concern whether the title V permit includes terms and conditions addressing federal applicable requirements ….") (emphasis added). Thus, DNREC must withdraw the initial permit submission from EPA review and—before sending a new permit to EPA as a proposed permit—must consider these comments and the additional comments DNREC will receive during or in concert with the public hearing (or afterward within the time for written comment, under the applicable regulations), prepare a response to these comments and the additional comments that Commenters intend to submit, as well as revise the permit to correct problems identified and take into account the submitted comments. If DNREC fails to withdraw the draft permit from EPA's review process, it will be in violation of the Title V regulations. We would appreciate DNREC's prompt action to address this and respectfully request written confirmation from DNREC that it has done so at DNREC's earliest convenience.	
<u>II. The Draft Permit Unlawfully Gives DNREC Discretion To Excuse Noncompliance During Periods Of Unplanned Shutdowns Of The FCU, FCCU, Or Their Controls.</u> (pg 10) DNREC must remove all unlawful SSM and other compliance waiver provisions from the permit to assure compliance with the Act and applicable regulations. The draft Title V permit contains "director's discretion" provisions that EPA has recognized are unlawful. These provisions purport to allow DNREC to excuse noncompliance with multiple limits during periods of unplanned shutdown of the FCU or FCCU and during shutdown or bypass of their pollution controls. The director's discretion provision for the FCU provides in part: This Permit does not authorize emissions exceeding the limits set forth in Condition 3 - Table 1.da.2 through da.10 including emissions during periods of any unplanned shutdown of the FCU, or any unplanned shutdown or bypass of the FCU COB or the Belco prescrubber or WGS.	The comment refers to a provision that requires the DCR to justify emissions caused from unplanned shutdowns of the FCU and/or FCCU control devices. The referenced provision follows EPA's Policy Regarding Excess Emissions During Malfunctions, Startup, and Shutdown guidance. The guidance allows an enforcement discretion approach to excess emissions occurring during startup and shutdown periods. Enforcement discretion allows a regulatory body to determine whether a specific violation by a source warrants enforcement and to determine the nature of the remedy to seek for any such violation. The provision must provide that it is the facility's

Instead, in the event of any unplanned shutdown of the FCU or any unplanned shutdown or bypass of the FCU COB or Belco prescrubber or the WGS, the Owner/Operator shall bear the burden of demonstrating to the Department's satisfaction that the Owner/Operator's continued operation of the FCU should not subject the Owner/Operator to an enforcement action for noncompliance with emission limitations or operating standards included in this Permit or otherwise applicable to the facility under the State of Delaware "Regulations Governing the Control of Air Pollution." The director's discretion provision for the FCCU is virtually identical, applying to the limits from "Condition 3 – Table 1.e.2 through e.9." The limits from Parts 2(da)(2)-(10) and 2(e)(2)-(9) of Table 1 that DNREC is purportedly allowed to excuse noncompliance with include limits established through the following critical Clean Air Act programs and regulations: • Prevention of Significant Deterioration ("PSD") and nonattainment New Source Review ("NSR") permitting • Delaware's state implementation plan ("SIP") • EPA-promulgated New Source Performance Standards ("NSPS") and • National Emission Standards for Hazardous Air Pollutants ("NESHAP"). These director's discretion provisions are unlawful under the Clean Air Act for at least three reasons.	responsibility to demonstrate that emissions were unavoidable, that the impact of the emissions were minimized, that the unit and monitoring systems were operated with good practice standards, and the appropriate regulatory bodies were notified. The purpose of this provision is to encourage the facility to prioritize emissions reductions when responding to an upset event and outlines the Division's expectations for an appropriate response in consideration of the environmental impact on Delaware's air quality. The provision is not a "director's discretion" provision which would administratively determine that an occurrence of excess emissions is not a violation. Instead, this provision explicitly recognizes excess emissions as noncompliance. Additionally, the provision does not provide an automatic exemption from the emission limits or preemptively waive future penalties. Finally, this provision does not set new standards, nor does it revise or establish new limits.
First, they violate the Clean Air Act requirement that emission limits and standards apply continuously, not only during some periods of time. *See, e.g.*, 42 U.S.C. § 7602(k) (defining "emission limitation" and "emission standard" as a "requirement … which limits the quantity, rate, or concentration of emissions of air pollutants *on a continuous basis*, including any requirement relating to the operation or maintenance of a source to assure *continuous emission reduction*, and any design, equipment, work practice or operational standard promulgated under this chapter." Contrary to the Clean Air Act's requirement that emission limits and standards apply	The Commenters' assertion that this provision affects the continuity of the emission limits is incorrect. The conditions explicitly identify failure to meet the limits as non-compliance because the limits are in fact applicable even during periods of unplanned shutdowns. Per EPA's "Final Rule: State Implementation Plans: Response to Petition for Rulemaking; Restatement

continuously, the permit's director's discretion provisions purport to give DNREC discretion to allow exemptions to these SIP, NESHAP, NSPS, NSR, and PSD limits and standards—meaning that they would not apply on a continuous basis. This is plainly unlawful, as the D.C. Circuit has confirmed. *See Sierra Club v. EPA*, 551 F.3d 1019, 1027 (D.C. Cir. 2008). In *Sierra Club*, the court held that the requirement for "continuous" emission limits and standards means that "temporary, periodic, or limited systems of control" do not comply with the Act.	and Update of EPA's SSM Policy Applicable to SIPs; Findings of Substantial Inadequacy; and SIP Calls to Amend Provisions Applying to Excess Emissions During Periods of Startup, Shutdown and Malfunction" dated June 12, 2015 section vii.A.1 it states in part "*SIP emission limitations: (i) Do not need to be numerical in format; (ii) do not have to apply the same limitation (e.g., numerical level) at all times; and (iii) may be composed of a combination of numerical limitations, specific technological control requirements and/or work practice requirements, with each component of the emission limitation applicable during a defined mode of source operation… the emission limitation as a whole must be continuous, must meet applicable CAA stringency requirements and must be legally and practically enforceable*." As the provision specifically does not authorize exceedance of any emission limit, there remains continuous emission limits.
Second, these director's discretion provisions are also unlawful under the Clean Air Act because they would purport to allow DNREC to alter—through *ad hoc* exemptions—the SIP, PSD, NSR, NESHAP, and NSPS limits in question through a process that is contrary to the Act's process for establishing and revising these limits. None of the SIP, PSD, NSR, NESHAP, and NSPS limits applicable to the FCU and FCCU and in question here contain the director's discretion provisions from the draft permit. Further, Clean Air Act § 110(i) provides that revisions to SIP provisions may only take place through certain specified routes, including the formal SIP	The Division disagrees that these provisions constitute an exemption. Under its most basic definition, an exemption would remove an obligation to meet permitted requirements and remove liability for failure to do so. Instead, the provision specifically maintains that DCRC is required to meet all applicable permitting requirements and failure to do so could result in enforcement actions. The stated condition that the provision does not authorize emission exceedances indicates that the emission limits and operating limitations continue to apply, and any noncompliance events must appear

revision process. But the director's discretion provisions here do not require EPA-approved SIP revisions before excusing the refinery's noncompliance. As for NSPS and NESHAP limits, only EPA—not DNREC—can establish or revise these limits. Clean Air Act § 112(1)(1) makes doubly clear that states cannot weaken NESHAP limits, such as through *ad hoc* exemptions: "Each State may develop and submit to the Administrator for approval a program for the implementation and enforcement … of emission standards … A program submitted by a State under this subsection may provide for partial or complete delegation of the Administrator's authorities and responsibilities to implement and enforce emissions standards and prevention requirements but shall not include authority to set standards less stringent than those promulgated by the Administrator …." 42 U.S.C. § 7412(l)(1) (emphasis added). Contrary to all of these requirements, the draft permit's director's discretion provisions, on their face, would allow DNREC to alter SIP, PSD, NSR, NESHAP, and NSPS limits through an *ad hoc* process that does not fall into any of the allowed routes for establishing or revising these limits. The provisions are therefore unlawful and cannot be included in the permit.	in required documentation and reporting as such. The conditions remain enforceable because they place the burden on the facility to demonstrate to the Department's satisfaction (rather than a predetermined checklist, for example, that may have the effect of preemptively limiting the Department's decision-making ability) that it has responded appropriately, and only generally outlines the Department's expectations for an appropriate response.
Third, the draft permit's director's discretion provisions contravene the Clean Air Act by purporting to allow DNREC to remove the ability of the public and EPA to enforce the affected SIP, PSD, NSR, NESHAP, and NSPS emission limits. In particular, Congress required continuously applicable emission limitations to ensure the public would have meaningful access to the "remedy provided by [the Act's citizen-suit provision] to assure compliance with emission limitations and other requirements of the Act." H.R. Rep. No. 95-294, at 92 (1977), *as reprinted in* 1977 U.S.C.C.A.N. 1077, 1171. Yet the director's discretion provisions, on their face at least, appear to attempt to give DNREC the ability to leave the surrounding communities without any ability to seek relief from the courts even when the refinery repeatedly releases massive amounts of pollution that exceed its normal emission limits. They also appear to attempt to undermine EPA's ability to enforce the permit under § 7413. Because the draft permit's director's discretion provisions purport to give DNREC the authority to	The Division is allowed to use enforcement discretion in its response to noncompliance periods. The provision explicitly identifies that there is no alteration of the compliance status; the emission exceedance is still considered noncompliance and must appear in any documentation and reporting as such. The permit states this explicitly in Condition 2.b.10 which states "All terms and conditions of this permit are enforceable by the Department and by the U.S. Environmental Protection Agency ("EPA") unless specifically designated as "State Enforceable Only". This permit condition references Regulation 1130

deprive the public of its ability to enforce continuous emission limits, they contravene the Act. Similarly, DNREC may not issue a permit that includes provisions with enforcement discretion reserved to the director of DNREC, and thus attempt to undermine EPA's ability to enforce the emission limits and standards in the permit. EPA has enforcement authority provided by § 113 that DNREC may not abrogate. Finally, where a facility commits a violation of applicable Clean Air Act standards or requirements in the permit, it is up to a federal court, not DNREC, to determine whether a violation has occurred and issue a penalty, pursuant to § 7604 or 7413. DNREC may not lawfully limit a federal court's future ability to determine proper remedies for the violations at issue by attempting to provide advance discretion from DNREC to waive exceedances, as the provisions do. Even where EPA itself has attempted to waive penalties for certain violations in advance, the U.S. Court of Appeals for the D.C. Circuit held EPA itself could not do so. *NRDC v. EPA*, 749 F.3d 1055, 1063 (D.C. Cir. 2014).	Section 6.2.1 which further states that "…all terms and conditions in a permit issued under 6.0 of this regulation…are enforceable by the Department, by EPA, and by citizens under section 304 of the Act."
<u>III. The Draft Permit Unlawfully Relaxes Federally Enforceable Limits During Planned Startup And Shutdown Of The FCU And FCCU And When The FCCU's Co Boiler Is Combusting Only Refinery Fuel Gas.</u> (pg 15) The draft Title V permit contains a combination of unlawful exemptions and alternate, higher limits that apply during planned startups and shutdowns of the FCU and FCCU instead of limits normally applicable to these units. See Title V Permit Condition 3 – Table 1, parts 2(da)(1)(i)(G), 2(e)(1)(i)(H). In addition, the FCCU is exempted from having to comply with certain limits when its CO boiler is combusting only refinery fuel gas. For example, the FCCU, during planned startups and shutdowns, is only required to meet a 500 lb/hr limit for PM instead of its normal limit of 1 lb/1,000 lb of coke burned. *Compare id.* at Part 2(e)(1)(i)(H)(2) *with id.* at Part 2(e)(2a)(i)(B). If the FCCU emitted PM at this same rate every hour of	Comparison of a short-term limit for an 80-hour period to an 8,760 hour annual limit is inappropriate; an annual limit broken down by hour will almost always be less than a short-term limit by hour, these two layers of protection serve different functions, this is the case for both normal operation and startup/shutdown periods. Additionally, different emission limits for different operating scenarios are a normal regulatory measure, this includes emission limits for periods where only refinery fuel gas (RFG) is being burned. The permit has startup/shutdown provisions for emission limits located in conditions Part 2 – e.4 through e.9 (except e.7). The PM limits are found in

the year, its annual emissions would be 2,190 tons/year—almost 10 times its annual limit of 203 tons/year. *See id.* at Part 2(e)(2a)(i)(B).	conditions e.2.a and e.2.b and so still apply. However, the PM emissions for normal operation are based on the coke burn rate; for periods without coke burn, this type of rate based limit is meaningless, this includes startup and shutdown periods, and any other periods where only RFG is being combusted. The startup/shutdown limits were established to cover this scenario.
And the draft permit allows the FCCU—instead of complying with its normal concentration limits with a 7-day and 365-day rolling averaging periods—to emit SO2 during these planned periods up to 165 lbs/hr, which is more than double the average hourly rate that the FCCU could emit at to meet its annual limit of 352 tons/year. *Compare id.* at Part 2(e)(1)(i)(H)(3) *with id.* at Part 2(e)(3)(i)(A).28	The permit has startup/shutdown provisions for conditions Part 2 – e.4 through e.9 (except e.7). The SO_2 limits are contained in Section e.3 of the permit and so still apply. However, concentration-based emission limits are less suitable during periods of low flow, such as startup and shutdown periods. The mass-based limits identified for startup and shutdown periods take this into account.
And during planned startups and shutdowns, the FCU—instead of complying with its normal limits for CO, which include concentration limits with an hourly and rolling 365-day averaging periods (*id.* at Part 2(da)(5)(i)(A))—is only required to meet a 415 lb/hr limit for CO. *Id.* at Part 2(da)(1)(i)(G)(6). If the FCU emitted CO at this same rate every hour of the year, its annual emissions would be 1,817.7 tons/year—over two and a half times its annual limit of 694.4 tons/year. *See id.* at Part 2(da)(5)(i)(A). The permit provides that, during planned startups and shutdowns, the FCU does not have to comply with <u>any</u> limit at all for NOx, lead, or hazardous air pollutants: the permit's planned startup and shutdown provision for the FCU does not list any alternate limits for these pollutants (all of which are limited during normal operations, under Parts 2(da)(4), (9), and (10) of the permit), and the permit specifically states that the limits in "Condition 3 – Table 1.<u>da.2 through da.10</u> below <u>shall not apply</u> during periods of planned startup	Comparing a short-term limit for an 116-hour period to an 8,760 hour annual limit is inappropriate; an annual limit broken down by hour will almost always be less than a short-term limit by hour, these two layers of protection serve different functions, this is the case for both normal operation and startup/shutdown periods. The normal operation emission limits are largely expressed as rate-based limits whereas the startup/shutdown limits are expressed as mass-based limits. Most of the startup/shutdown limits are less than or equal to the normal operation limits. For pollutants where this isn't the case, there is not an

and planed shut downs of the FCU …." *Id.* at Part 2(da)(1)(i)(G) (emphasis added).	applicable federal limit, and the State is able to establish limits as appropriate. The permit has the following requirements for the FCU during startup/shutdown periods for each of the identified pollutants with the clarification identified below. The effect of the startup/shutdown provision on SIP, NSPS, NESHAP, and PSD/NSR requirements are shown. FCU: Part 2 da.1.i.G The short-term Emission Standards in Condition 3 – Table 1.da.2 through da.10 below shall not apply during periods of planned start-up and planned shut-down of the FCU provided the planned start-up and shut down event does not exceed 116 hours… CO: The startup/shutdown limit is 415 lbs/hr which is equivalent to the hourly 500 ppm limit during normal operation. NSPS Part 60 Subpart J is applicable to this unit because it is a fuel gas combustion device. There are no CO standards for fuel gas combustion devices in subpart J. There is not an applicable NESHAP for this pollutant at this unit. This unit does not have an NSR/PSD permit because it has not undergone a modification that would increase emissions. Delaware Regulation 1111 (CO Emission from Industrial Process Operations in New Castle County) requires fluid coking units to burn CO at 1300 def F or an equivalent technique. An exemption from this condition is made for start-up and shutdown of steady-state units governed by a Regulation 1102

	permit. NO_X: Condition da.4.i requires an annual tune-up, and compliance with the facility-wide NO_X Cap as emission limiting measures. The facility-wide NO_X Cap is a SIP limit established in Regulation 1142 Section 2.3.2. Regulation 1142 section 2.3.1 identifies large refinery units that produce NO_X including the FCU and specifies emission standards for those units. In lieu of complying with Section 2.3.1 a facility may comply with Section 2.3.2 which establishes a facility-wide NO_X Cap and further identifies that the NO_X Cap limit includes emissions during startup, shutdown, and malfunction. The facility complies with Regulation 1142 by complying with the NO_X Cap. Regulation 1142 Section 2.3.3 reserves the Department's right to "establish [a] lower NO_X emission cap and more stringent NO_X emission limitations for any source subject to this regulation" which DNREC has exercised by establishing the short-term NO_X limits for normal operation periods. There are no other state or federal short-term NO_X requirements applicable to this unit. This unit has not triggered NSR applicability for NO_X. Pb: During startup/shutdown periods there is minimal to no coke-burn off from the catalyst. An emission limit based on coke-burn is not suitable during these periods. Additionally, compliance with the coke-burn based limit is based on stack testing and is not appropriate during startup/shutdown periods since stack tests are conducted only during

	normal operating scenarios. During the startup/shutdown periods, the facility is limited by the annual limit of 0.12 TPY. Neither the NSPS nor NESHAP establish a federal Pb limit. The SIP has not established an applicable state Pb limit. NSR is not applicable for this pollutant at this unit because a major modification has not occurred that would increase the Pb emissions from the FCU. HAP: During startup/shutdown periods there is minimal to no coke-burn off from the catalyst. An emission limit based on coke-burn is not suitable during these periods. Additionally, compliance with the coke-burn based limit is based on stack testing and is not appropriate during startup/shutdown periods since stack tests are conducted only during normal operating scenarios. An annual limit serves as a continuous emission limit. The SIP does not establish an applicable state HAP limit. NSR is not applicable for this pollutant at this unit because a major modification has not occurred that would increase the HAP emissions from this unit. Neither the NSPS nor NESHAP establish a federal HAP limit. Instead the NESHAP contains a miscellaneous process vent provision which requires reduction of HAP emissions by 98% or to 20 ppm for streams controlled by a boiler (63.643(b).) The text added above clarifies that this provision is not exempted under the startup/shutdown provisions because it is not a short-term limit.
Likewise, the permit provides that, during planned startups and shutdowns and when the FCCU CO boiler is combusting only refinery fuel gas, the	The startup and shutdown limits are short-term limits and only replace the standard operating short-

FCCU does not have to comply with any limit at all for NOx, CO, lead, or hazardous air pollutants: the permit's planned startup and shutdown provision for the FCCU does not list any alternate limits for these pollutants (all of which are limited during normal operations, under Parts 2(e)(4), (5), (9), and (10) of the permit), and the permit specifically provides that the limits in "Condition 3 – Table 1.e.4 through e.9 below, with the exception of e.7, shall not apply during periods when the FCCU COB is combusting refinery fuel gas only and during periods of planned shut downs and planned start ups of the FCCU…." *Id.* at Part 2(e)(1)(i)(H) (emphasis added).	term limits, and only during the planned startup and shutdown periods. The revised permit will clarify this as shown. (Underline indicates insertion, strikethrough indicates deletion.) FCCU: Part 2 e.1.i.H The short-term Emission Standards in Condition 3 – Table ~~1.e.4 through e.9 below~~ 1.e.4.i.B, e.5, e.6, e.8, and e.9 below, ~~with the exception of e.7~~, shall not apply during periods when the FCCU COB is combusting refinery fuel gas only and during periods of planned shut downs and planned start-ups of the FCCU for a period of time not to exceed 80 hours for each planned shut-down and each planned start-up event… The permit has the following requirements for the FCCU during startup/shutdown periods for each of the identified pollutants. The effect of the startup/shutdown provision on SIP, NSPS, NESHAP, and PSD/NSR requirements are shown. NO_X: The NO_X limit of 137 ppm on a 7-day average and 100.7 ppm on a 365-day average (Condition e.4.i.C) applies at all times including startup/shutdown periods. The text added to the startup/shutdown provision of Condition e.1.i.H makes especially clear that those limits apply at all times. Additionally, the facility-wide NO_X cap is a SIP limit that applies at all times for all NO_X producing units; all NO_X emissions regardless of whether they are emitted during normal operation or other operating scenarios must be included in the facility-wide totals. Neither the applicable NSPS nor

	NESHAP contain provisions pertaining to NO_X. This unit has not triggered NSR for this pollutant. CO: This has a startup/shutdown limit identical to the normal operation limit. It was previously 860 lbs/hr, however, the last Significant Permit Modification updated it to 500 ppm to meet the startup/shutdown provisions of Part 63 Subpart UUU as identified in Condition e.4.i.H. While the permit may appear to contain an exemption for this limit, the startup/shutdown condition (Condition e.1.i.H) supplements 500 ppm as the "new" startup/shutdown limit and includes the NESHAP provision of 63.1565(a)(5) that allows oxygen concentration in the exhaust to determine compliance during startup, shutdown, and hot standby events. Pb: During startup/shutdown periods there is minimal to no coke-burn off from the catalyst. An emission limit based on coke-burn is not appropriate during these periods. Additionally, compliance with the coke-burn based limit is based on stack testing and is not appropriate during startup/shutdown periods since stack tests are conducted only during normal operating scenarios. Further evaluation is needed of Pb which does not have a numerical limit during startup/shutdown periods. DCRC has proposed a limit of 0.14 TPY based on the design capacity for coke burn at this unit. Neither the NSPS nor NESHAP establish a federal Pb limit. The SIP does not establish an applicable state Pb limit. NSR is not applicable for this pollutant at this unit

	because a major modification has not occurred that would increase the Pb emissions from this unit. Condition e.8.i. will be modified to include an annual limit for Pb. Emission Standard: Pb emissions from the FCCU WGS+ shall not exceed 4.37 E-04 pounds per thousand pounds of coke burned and 0.14 TPY. HAP: HCN is emitted during full burn and is proportional to coke burn-off. HCN compliance is based on CO compliance as shown above.
Further, the permit appears to exempt emissions from the FCU and FCCU during planned startup and shutdown (and when the FCCU's CO boiler is only combusting refinery fuel gas) from counting toward compliance with these units' annual limits for various pollutants, since several of the limits included in "Condition 3 – Table 1.da.2 through da.10" and "Table 1.e.4 through e.9 below, with the exception of e.7" (all of which "shall not apply" during these periods) are annual limits. Planned startups and shutdowns of the FCU are allowed to last up to 116 hours (or almost five full days), and planned startups and shutdowns of the FCCU are allowed to last up to 80 hours (or more than three full days). *Id.* at Parts 2(da)(1)(i)(G), 2(e)(1)(i)(H).	The annual limits apply at all times. The startup/shutdown limits are short-term limits and only replace the standard operating short-term limits, and only during the planned startup/shutdown periods. Further, these units cannot be operated in a way that cycles between startup and shutdown i.e. they cannot circumvent the lower standard operating limits by operating continuously in start-up mode, or continuously in shutdown mode, or by alternating between the two indefinitely. Once start-up is complete these units typically operate continuously for a few years at a time. The revised permit will clarify that startup and shutdown periods are not excluded from the annual total; all emissions that occur at the facility are included in the emissions inventory as shown below (underlines indicate insertion, strikethroughs indicate deletion).

	FCCU: Part 2 e.1.i.H The short-term Emission Standards in Condition 3 – Table ~~1.e.4 through e.9~~ 1.e.4.i.B, e.5, e.6, e.8, and e.9 below, ~~with the exception of e.7~~, shall not apply during periods when the FCCU COB is combusting refinery fuel gas only and during periods of planned shut downs and planned start-ups of the FCCU for a period of time not to exceed 80 hours for each planned shut-down and each planned start-up event... FCU: Part 2 da.1.i.G The short-term Emission Standards in Condition 3 – Table 1.da.2 through da.10 below shall not apply during periods of planned start-up and planned shut-down of the FCU provided the planned start-up and shut down event does not exceed 116 hours…
The limits affected by these exemptions and inflated alternate limits are a combination of SIP, PSD/NSR, NESHAP, and NSPS limits. *See id.* at Parts 2(da)(2)-(9), 2(e)(2)-(9) (with the exception of (e)(7)); *supra* at 10-11. The exemptions to these various limits for planned startups and shutdowns and periods when the FCCU's CO boiler is only combusting refinery fuel gas are plainly unlawful, for all of the same reasons that the director's discretion provisions are unlawful: they violate the Clean Air Act requirement that emission limits and standards apply continuously; they purport to alter at least SIP, NESHAP, and NSPS limits through a process that is contrary to the required process for establishing and revising these limits;[29] and they attempt to remove the ability of the public and EPA to enforce, and for a court to apply penalties, for the limits applicable to these units during normal operations. *See supra* at 11-14.	As explained above, the requirement for a continuous limit does not mean that any particular limit must apply continuously, but that a source must have a set of limits that as a whole result in continuous limitations. Each of the pollutants for the FCU and the FCCU (with the exception of Pb as identified above) currently has an annual emission limit in addition to operating and monitoring standards to make up continuous emission limitations.

	The Commenters have not identified any applicable SIP, PSD, NSR, NESHAP, or NSPS limit that is affected by the startup/shutdown conditions.
Apart from the exemptions, the alternate, inflated limits during planned startup and shutdown are also unlawful because they purport to alter at least SIP, NESHAP, and NSPS limits through a process that is contrary to the required process for establishing and revising these applicable to these units during normal operations. *See supra* at 12-14. To the extent the alternate limits inflate (rather than exempt noncompliance with) NSR/PSD limits, these inflated limits may also be unlawful. EPA has "consistently" stated that major NSR/PSD limits must apply at all times and that PSD/NSR permits cannot contain blanket exemptions to those limits for SSM periods. *See Order Granting in Part and Denying in Part Petition for Objection to Permit, In the Matter of Southwestern Electric Power Co., H.W. Pirkey Power Plant*, Petition No. VI-2014-01 ("Pirkey Order") (Feb. 3, 2016) at 8 (citing to previous Title V orders and EPA Environmental Appeals Board (EAB) decisions). While EPA has stated that PSD/NSR permits may contain alternative limits that apply during startup and shutdown when the permitting authority determines that compliance with a primary PSD/NSR limit is infeasible during those periods, such alternative limits must be justified as BACT/LAER for the startup/shutdown periods to which they apply. *Id.* at 8, 12 (citing previous Title V orders and EAP decisions). *See also* 42 U.S.C. §§ 7475(a)(4), 7503(a)(2) (the Clean Air Act's BACT and LAER requirements, respectively). In at least one letter to Texas, EPA has made clear that states cannot replace or revise existing NSR/PSD limits without complying with the major NSR/PSD required procedures used to establish the original limits. *See also* 42 U.S.C. §§ 7475, 7503 (Clean Air Act requirements for PSD and major NSR permits, respectively). Thus, to revise the major NSR/PSD limits applicable to normal operations and create new alternate limits for periods of planned startup and shutdown, DNREC would need to (among other things): analyze whether—and ensure that—the alternate limits for these	The Commenters have not identified any applicable SIP, NESHAP, NSPS, or NSR/PSD limit that is affected by the startup/shutdown conditions and has not shown that the ability for EPA or the public to enforce any State or Federal requirement has been affected.

startup and shutdown periods meet BACT or LAER (depending on the limit at issue); analyze air quality impacts resulting from the relaxed limits for startup and shutdown periods; ensure that the public participation requirements for establishing major NSR/PSD limits are complied with; and offset any emissions increases resulting from relaxing major NSR limits. Here, commenters cannot determine whether DNREC followed these requirements in establishing the alternate planned startup and shutdown limits that apply instead of the refinery's PSD/NSR limits that apply during normal operations. In sum, DNREC must remove the planned startup and shutdown provisions or the permit will violate the Act.	
<u>IV. The Draft Permit Includes An Unlawful Affirmative Defense To Liability For Exceedances Of "Technology-Based" Limits During Emergencies And Malfunctions.</u> (pg 16) The draft Title V permit also contains an unlawful affirmative defense to liability for noncompliance with "technology-based" limits caused by malfunctions and emergencies. *See* Title V Permit Condition 2(b)(5)-(6). *See also* Title V Permit Conditions 2(e)(4)-(5) (defining "emergency" and "malfunction"), 3(b)(2)(iii), 3(c)(2)(ii)(A) (recordkeeping and reporting requirements for the affirmative defense). The affirmative defense is also found in Delaware's Title V rules at 7 Del. Admin. Code 1130 § 6.7. This regulatory provision is not part of Delaware's SIP. *See* 40 C.F.R. § 52.420. The affirmative defense cannot lawfully be included in this Title V permit. Affirmative defenses violate § 7604 and 7613 and thus are unlawful under the Clean Air Act, as the U.S. Court of Appeals for the D.C. Circuit confirmed in *Natural Resources Defense Council v. EPA*, 749 F.3d 1055, 1063 (D.C. Cir. 2014). The D.C. Circuit explained that the Act's "citizen suit" provision, 42 U.S.C. § 7604(a), "creates a private right of action" and, "as the Supreme Court has explained, 'the Judiciary, not any executive agency, determines 'the scope'—*including the available remedies*—'of judicial power vested by' statutes establishing private rights of action.'" *Id.* at 1063	The Title V regulation approvals contained in Regulation 1130 are not considered SIP actions under CAA Section 110 and are not published in Part 52. Instead, the approvals are published in Part 70 Appendix A, most recently, effective February 5, 2007. The provision referenced in the permit is in all Title V permits and comes from 7 DE Admin. Code 1130, Section 6.7.2. It is based on EPA's 1999 Policy Regarding Excess Emissions During Malfunctions, Startup, and Shutdown guidance. This policy clarifies that States have the discretion to provide an affirmative defense (to excuse a source from civil penalties if the source can demonstrate that it meets certain objective criteria) from actions for penalties brought for excess emissions that arise during certain malfunction, startup, and shutdown episodes.

(emphasis in original; quoting *City of Arlington v. FCC*, 133 S. Ct. 1863, 1871 n.3 (2013)). EPA recognized the same in the SSM SIP Call. 80 Fed. Reg. at 33,929. EPA also recognized the same in 2016 in proposing to require states to remove affirmative defenses from their Title V rules. 81 Fed. Reg. 38,645, 38,650-51. There, EPA also properly found that, to the extent the affirmative defense from EPA's Part 70 regulations qualifies as an exemption, it would run contrary to the requirement that emission limits apply continuously. *Id.* The same applies to the affirmative defense at issue here. It is unclear why DNREC's regulations contain an illegal affirmative defense, as it would be illegal for EPA to approve the defense during its review of the state regulations. Even if the affirmative defense in DNREC's regulations were previously approved by EPA in violation of the Act, it still must be removed from the draft permit for several reasons. First, it is unlawful for the reasons explained in the preceding paragraph. Second, the affirmative defense in the draft permit and DNREC's rules is unlawfully more lax than EPA's Title V regulations, which only contain an affirmative defense for emergencies—not malfunctions. *See* 40 C.F.R. § 70.6(g). *See also* Operating Permits Program and Federal Operating Permits Program, Proposed Rule, 60 Fed. Reg. 45,530, 45,558 (Aug. 31, 1995) (state permitting agencies "may not adopt an emergency [affirmative] defense less stringent than that set forth at section 70.6(g)…."). In addition, Title V of the Clean Air Act contains no affirmative defense, and EPA's regulatory provision is unlawful. *See, e.g.*, *NRDC v. EPA*, 729 F.3d. Therefore, DNREC may not replicate it. The affirmative defense is also unlawful because it could, on its face, be read to impermissibly revise EPA's NSPS and NESHAP regulations. The "technology-based" limits subject to the defense presumably include NSR and PSD limits, but, in an enforcement proceeding, Delaware City Refining could potentially argue that NSPS and NESHAP limits are also subject to the affirmative defense. For the same reasons as discussed above in the context of director's discretion provisions, *see supra* at 12-13, DNREC cannot revise EPA-established NSPS and NESHAP limits by adding an	The EPA has since concluded in 2015 that the enforcement structure of the CAA precludes any affirmative defense provisions that would operate to limit a court's jurisdiction or discretion to determine the appropriate remedy in an enforcement action. In the same regulation, in Section 6.2 it states in part "… all terms and conditions in a permit issued under [Section] 6.0 of this regulation…are enforceable by the Department, by EPA, and citizens under section 304 of the Act." Recent EPA guidance "Inclusion of Provisions Governing Periods of Startup, Shutdown, and Malfunctions in State Implementation Plans" dated October 9, 2020 indicates that "[a] SIP provision that creates an affirmative defense to claims for penalties in enforcement actions regarding excess emission caused by malfunctions may be consistent with CAA requirements in certain circumstances…if they are narrowly tailored so as not to undermine the fundamental requirement of attainment and maintenance of the NAAQS, or any other requirement of the CAA." This regulation does not seek to limit EPA's or citizens' ability to seek enforcement. This regulation is correctly applied to this facility; concerns around the regulation must be addressed at the regulatory level rather than as a permit action.

affirmative defense that does not otherwise appear in those regulations. At the very least, DNREC must revise the permit to explicitly state that the affirmative defense does not apply to any NSPS and NESHAP provisions that may be applicable to the refinery—including the requirements from 40 C.F.R. Part 63, Subparts CC and UUU. Thank you for your time and consideration of these comments and this hearing request.	

Table 2: COMMENTERS INCLUDING THE DELAWARE AUDUBON SOCIETY, ENVIRONMENTAL JUSTICE HEALTH ALLIANCE FOR CHEMICAL POLICY REFORM, THE WIDENER ENVIRONMENTAL AND NATURAL RESOURCE LAW CLINIC, ENVIRONMENTAL INTEGRITY PROJECT, AND EARTHJUSTICE (comments identified as Mark Martell, et al. in hearing record)

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I. DNREC Has Violated A Core Public Participation Requirement Of Title V. (pg 2) DNREC may not lawfully proceed to the proposed or final permit stage without satisfying the core public participation requirements of the Clean Air Act and federal and state implementing regulations. 42 U.S.C. § 7661a(b)(6); 40 C.F.R. §§ 70.5, 70.6; *see also* 7 Del. Admin. Code 1102 §§ 12.2, 12.2.4; 7 Del. Admin. Code 1130 § 7.10.2 (requiring DNREC to provide an opportunity for *both* "the submission of written comments and hearing requests"); *id.* § 7.10.3 (requiring opportunity for public hearing on Title V permits); *id.* § 7.10.7 (requiring DNREC to consider "all comments received"). The undersigned groups called for a valid public hearing in both the May 22 and June 25 comment submissions to DNREC. Yet on July 14, 2020, DNREC proceeded to hold a meeting that does not qualify as a "public hearing" within the meaning of the Act. During that meeting, all interested parties *except the public* had an opportunity to speak: DNREC	Following the conclusion of the public hearing and the closing of the public comment period the Division of Air Quality prepares this Technical Response Memorandum for the Hearing Officer. This memo responds to technical comments submitted during the initial public notice period, the public hearing comment period, and the 15-day facility comment period. Technical comments are those that are related to the facility, and its units as they relate to the air permit and relevant state and federal air regulations. Comments submitted regarding the format of the public hearing and its exclusion of live oral comments during the hearing are administrative

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and the DCRC each had representatives who spoke, were on video, and who gave presentations. Members of the public, including Commenters' members, joined but were unable to speak or ask questions. DNREC still has not responded to Commenters' June 25 submission in writing. In that submission, Commenters explained in detail why DNREC's then-proposed "public hearing" did not satisfy Clean Air Act public participation requirements. As the publicly released transcript from the July 14 meeting shows, during that meeting DNREC did not provide any opportunity for the public to speak or to be heard, either to ask questions or to offer contemporaneous, live comments. Instead, the hearing officer stated repeatedly that there would be *no* opportunity for the public to speak: • "Please note that the Department will not be accepting any comments in realtime during the hearing this evening." • "Again, there will be no Q and A or live chat sessions permitted during the hearing tonight, nor will there be any realtime comments accepted on this virtual platform during the course of tonight's proceedings." DNREC gave no explanation of any kind for refusing to allow the public to participate. At least three staff of DNREC participated in different locations and were clearly able to see and hear each other through the WebEx technology used – including a court reporter who created the transcript. Even DCRC had a representative who spoke and gave a presentation during the hearing. It is clear from the July 14 meeting that DNREC has the capability to allow the public to speak and ask questions, yet it chose not to do so. DNREC's decision was unlawful, and if the Department proceeds to the next stage without curing this, its failure to satisfy the public participation requirements will have tainted this entire permit proceeding. DNREC must give the public an opportunity to *speak*, and to be heard, as the Clean Air Act requires and as Governor Carney directed in his 2020 Proclamation. There is no excuse as to why DNREC has not held a valid public hearing, as other states prove it can be done during the	concerns and are not technical in nature and will not be addressed in this Technical Response Memorandum prepared by AQ. Instead, this and other administrative concerns, as appropriate, will be addressed in the Hearing Officer's Report and Secretary's Order.

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pandemic, The Clean Air Act requires both an opportunity for comment *and* an oral hearing. In addition, as set forth in the public comments submitted by Kenneth Kristl on July 23,2020, DNREC's own regulations—as well as the Governor's March 12, 2020 Declaration and Proclamation—require a public hearing that allows oral comment at the hearing by the public. Thus, in addition to violating the federal Clean Air Act requirements, the July 14 meeting violated Delaware state law requirements. Refusing to allow the public a chance to listen to other commenters and offer oral comments has denied the public a fundamental right of participation required by Clean Air Act Title V and implementing federal and state regulations. If DCRC does not cure this violation by holding a valid public hearing in which the public can speak and actually be heard, EPA will be required to object pursuant to 42 U.S.C. § 7661d(b).	
II. DNREC Must Remedy The Draft Permit's Numerous Unlawful SSM Provisions. II.A. Additional Comments Regarding the Draft Permit's Unlawful Affirmative Defense To Liability For Exceedances of "Technology-Based" Limits During Emergencies and Malfunctions (pg. 4) Commenters submit these additional comments regarding the draft permit's unlawful affirmative defense to liability for noncompliance with "technology-based" limits caused by malfunctions and emergencies. *See* Title V Permit Condition 2(b)(5)-(6). DNREC must remove the permit's affirmative defense provisions for the reasons discussed below and in our initial May 2020 comments, which we reiterate and incorporate here by reference. **First**, DNREC's preliminary response to our initial comments regarding the affirmative defense, which DNREC offered in the July 14 "public hearing" regarding this Title V renewal, fails to demonstrate that the draft permit's affirmative defense is lawful. There, DNREC conceded that the affirmative	As previously stated during the public hearing: The provision referenced in the permit is in all Title V permits and comes from 7 DE Admin. Code 1130, Section 6.7.2. It is based on EPA's 1999 Policy Regarding Excess Emissions During Malfunctions, Startup, and Shutdown guidance. This policy clarifies that States have the discretion to provide an affirmative defense (to excuse a source from penalties if the source can demonstrate that it meets certain objective criteria) from actions for penalties brought for excess emissions that arise during certain malfunction, startup, and shutdown episodes. The EPA has since concluded in 2015 that the enforcement structure of the CAA precludes any affirmative defense provisions that would operate to limit a court's jurisdiction or discretion to determine

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defense is based on EPA's prior, 1999 policy regarding excess emissions during SSM periods—and that EPA has "since concluded that the enforcement structure of the CAA precludes any affirmative defense provisions that would operate to limit a court's jurisdiction or discretion to determine the appropriate remedy in an enforcement action." *Id.* Yet DNREC asserts that the draft permit's affirmative defense (also found in Delaware's Title V rules at 7 Del. Admin. Code 1130 § 6.7) "does not seek to limit EPA's or citizens' ability to seek enforcement" because 7 Del. Admin. Code 1130 § 6.2 states that "all terms and conditions in a permit issued under 6.0 of this regulation … are enforceable by the Department, by EPA, and by citizens under section 304 of the Act." That an affected person can bring an enforcement action under 42 U.S.C. § 7604 (or that EPA can bring an enforcement action under § 7413) does not, by itself, erase or eliminate affirmative defenses to that action—especially when those affirmative defenses are built right into the permit being enforced. Because this language is still in the permit, DCRC would still be able under the plain language of the draft permit to attempt to assert an affirmative defense that—if a court in an enforcement proceeding found that all of the affirmative defense factors were met—could tie the court's hands to find that DCRC had not violated "technology-based" or other applicable limits when emissions exceeded those limits during malfunctions and emergencies. Thus, given that DNREC effectively recognizes that the affirmative defense here is unlawful because (among the other reasons laid out in our initial comments and below, which DCRC has not addressed) it "operate[s] to limit a court's jurisdiction or discretion to determine the appropriate remedy in an enforcement action," it must be removed from the permit.[17]	the appropriate remedy in an enforcement action. In the same regulation, in Section 6.2 it states in part "… all terms and conditions in a permit issued under [Section] 6.0 of this regulation…are enforceable by the Department, by EPA, and citizens under section 304 of the Act." Recent EPA guidance "Inclusion of Provisions Governing Periods of Startup, Shutdown, and Malfunctions in State Implementation Plans" dated October 9, 2020 indicates that "[a] SIP provision that creates an affirmative defense to claims for penalties in enforcement actions regarding excess emission caused by malfunctions may be consistent with CAA requirements in certain circumstances…if they are narrowly tailored so as not to undermine the fundamental requirement of attainment and maintenance of the NAAQS, or any other requirement of the CAA." This regulation is correctly applied to this facility; concerns around the regulation must be addressed at the regulatory level rather than as a permit action.
Second, there are additional reasons why DNREC must remove the affirmative defense. To begin with, Title V permits must assure compliance with all applicable requirements and are designed to strengthen enforcement, but the draft permit cannot ensure compliance	The affirmative defense provisions were historically developed to address the limitations of technology-based limits. The EPA understood that no piece of equipment operates perfectly all of the time. Rather

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with—and renders unenforceable—applicable "technology-based" PSD/NSR, NESHAP, and NSPS requirements because it alters them by adding an affirmative defense to liability that is not contained in underlying permits and regulations that established the requirements in the first place. Specifically, the Clean Air Act requires Title V permits to include "*enforceable* emission limitations and standards … and such other conditions as are necessary to *assure compliance with applicable requirements of this chapter* …." 42 U.S.C. § 7661c(a) (emphasis added). NESHAP, NSPS, and PSD/NSR requirements are plainly "applicable requirements of this chapter"—the Clean Air Act. To ensure compliance with these applicable requirements, the Act specifically requires that any applicable NESHAP, NSPS, and PSD/NSR limits be "enforceable" in Title V permits. In addition, 42 U.S.C. § 7661a(f) declares that a state's Title V program cannot be approved by EPA, even partially, unless it "applies, and ensures compliance with … [a]ll requirements established under section 7412 … applicable to 'major sources' … [and] [a]ll requirements of [Title I] (other than section 7412…) applicable to sources required to have a permit under [Title V]." The NESHAP requirements applicable to this refinery are "requirements established under § 7412 applicable to major sources," and NSPS and NSR/PSD requirements appear in Title I— placing all of these requirements squarely within the requirements that a Title V must ensure compliance with. Consistent with the statute, 40 C.F.R. § 70.1(b) declares that "[a]ll sources subject to these regulations shall have a permit to operate that assures compliance by the source with all applicable requirements." *See also* 40 C.F.R. §§ 70.4(b)(3)(i), (v) (a state must have authority to "[i]ssue permits and assure compliance with each applicable requirement" and "[i]ncorporate into permits all applicable requirements"), 70.6(a)(1) (permit must "assure compliance with all applicable requirements at the time of permit issuance"), 70.7(a)(1)(iv) (a permit can be issued only if it "provide[s] for compliance with all applicable requirements"). EPA's Title V regulations	than establish a lax limit which would be attainable 100% of the time, the EPA established technology-based limits based on optimal performance of the equipment, recognizing that equipment would fluctuate outside of the optimal range even when operated and maintained properly. To compensate for this limitation affirmative defense provisions create a mechanism to establish lower, more protective limits, while retaining enforcement discretion for those periods when technology inevitably fails. The affirmative defense requires an operator to show that an exceedance was unavoidable and handled appropriately. In any enforcement proceeding, the facility has the burden of proof to establish that any individual incident meets the definition of "emergency" or "malfunction as defined in Section 6.7.1 of Regulation 1130. Applicable provisions remain enforceable because affirmative defenses do not provide relief from the initial enforcement action of a Notice of Violation.

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define "applicable requirement" to specifically include NSR/PSD limits and NESHAP and NSPS requirements. *See id.* § 70.2 (parts (2)-(4) of the "applicable requirement" definition). Also consistent with the statute, § 70.6(b)(1) provides that, except for those terms specifically marked as state-only, "[a]ll terms and conditions in a part 70 permit … are *enforceable* by [EPA] and citizens under the Act."18 40 C.F.R. § 70.6(b)(1) (emphasis added). Delaware's regulations implement these requirements. *See, e.g.*, 7 Del. Admin. Code 1130 § 2 (applicable requirement definition), § 6 (permit requirements), § 7 (permit renewal requirements). Here, we have seen no indication that the various PSD/NSR permits that apply to the refinery contain the draft Title V permit's affirmative defense. And the applicable NSPS and NESHAP requirements do not contain the defense. Contrary to the unambiguous mandates from the Act and EPA's regulations, the permit cannot ensure compliance with applicable PSD/NSR, NSPS, and NESHAP requirements because it allows DCRC to avoid having to comply with the requirements during malfunctions and emergencies. And, contrary to the plain language of the Act and EPA's regulations, the draft permit renders these applicable PSD/NSR, NSPS, and NESHAP requirements not "enforceable" by EPA and the public in those situations where DCRC proves the elements of the affirmative defense. Unlawfully, the affirmative defense effectively makes these applicable requirements inapplicable during certain emergencies and malfunctions. In addition to contravening the plain language of the Clean Air Act and EPA's regulations, the permit's affirmative defense also contravenes Title V's core purpose of promoting compliance and strengthening enforcement. This core purpose is made clear by the legislative history and statutory structure. For example, in enacting it, Congress expected Title V to "substantially strengthen enforcement of the Clean Air Act" by "clarify[ing] and mak[ing] more readily enforceable a source's pollution control requirements." S. Rep. No. 101-228, at 347-48 (1990), *as reprinted in* 1990 U.S.C.C.A.N. 3385, 3731. Similarly, the Senate Report explained:	

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"The first benefit of the title V permit program is that … it will clarify and make more readily enforceable a source's pollution control requirements." *Id.* at 347, 1990 U.S.C.C.A.N. 3731. *See also id.* at 346, 1990 U.S.C.C.A.N. 3729 ("Operating permits are needed to … better enforce the requirements of the law by applying them more clearly to individual sources and allowing better tracking of compliance."). To effectuate this purpose of promoting compliance and strengthening enforcement, Congress designed Title V permits to enable EPA, states, and the public to identify violations and correct them—requiring Title V permits to list all applicable requirements and include monitoring, recordkeeping, reporting, and annual compliance certification requirements and schedules of compliance. 42 U.S.C. § 7661(c)(a), (c). To this end, Congress also provided that any Title V permit condition can be enforced administratively or in court by EPA or by the public through a citizen suit. *Id.* §§ 7413(a)(3), 7604(a)(1), (f). Contrary to Title V's core purpose of promoting compliance and strengthening enforcement, the draft permit's affirmative defense renders applicable NESHAP, NSPS, and PSD/NSR requirements less enforceable: in an enforcement suit, DCRC can raise an affirmative defense that could completely bar enforcement for violations of these requirements. That affirmative defenses make applicable requirements less enforceable is made clear by the U.S. District Court's holding in *Sierra Club v. Energy Future Holdings Corp. et al.*, No. W- 12-CV-108, 2014 WL 2153913 (W.D. Tex. Mar. 28, 2014). In *Energy Future Holdings*, Sierra Club brought a citizen suit against the owners and operators of the Big Brown power plant in Texas for thousands of self-reported violations of emission limitations for opacity. The emissions released during those events constituted 15-20 percent of Big Brown's total annual particulate emissions. *Id*. at *3. Despite the obvious violations, the district court concluded that the state environmental agency's determinations that the plant had satisfied the criteria for the relevant affirmative defense to	

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penalties altered the court's authority to find liability for self-reported exceedances of SIP emission limits, ruling from the bench: *It does seem to the Court that what the plaintiff seeks is for this Court to overrule the extensive and complete findings of the Texas Commission on Environmental Quality which is designed to and does regulate facilities such as Big Brown the defendant in this case. I don't think that's normally an appropriate function of federal courts and certainly – it's certainly something I decline to do and it's something that should only be done in extraordinary circumstances. It would be the finding of the Court that plaintiff has not proved by a preponderance of the evidence that the defendant has violated the Clean Air Act.* Trial Tr. at 574, *Sierra Club v. Energy Future Holdings Corp.,* No. W-12-cv-108 (W.D. Tex. Feb. 26, 2014), attached here as Exhibit 1. In its final written order on the merits, the district court included other reasons for denying the plaintiff's claims on the merits, but continued to rely on the state affirmative defense determination to hold that penalties were not appropriate. *Energy Future Holdings,* 2014 WL 2153913, at *8, 12-13. If DNREC does not remove the affirmative defense provisions here, there is a very real possibility that DCRC, in any enforcement case to remedy violations at the refinery, could make very similar arguments as the defendants in the Energy Future Holdings case—thereby frustrating enforcement for clear violations. In sum, DNREC must remove the affirmative defense provisions from this Title V permit because they conflict with clear mandates from the Clean Air Act and EPA's implementing regulations that govern this permit. It does not matter that the affirmative defense is contained in Delaware's Title V rules, even if those rules were approved by EPA (which is completely unclear, as discussed below): those state rules cannot supersede the clear intent of Congress in enacting Title V of the Clean Air Act. DNREC must revise the permit to reflect that clear intent.	

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Third, that the affirmative defense is contained in Delaware's Title V permitting rules provides no reason for retaining the affirmative defense in this permit because there is no indication, that we have seen, that EPA approved the affirmative defense provisions when approving the state's Title V regulations. EPA's Federal Register notices regarding approval of the state's Title V program do not even mention the affirmative defense. 60 Fed. Reg. 48,944 (Sept. 21, 1995) (proposed interim approval); 60 Fed. Reg. 62,032 (Dec. 4, 1995) (final interim approval); 66 Fed. Reg. 50,378 (Oct. 3, 2001) (proposed full approval); 66 Fed. Reg. 50,321 (Oct. 3, 2001) (direct final full approval).	The Title V regulation approvals contained in Regulation 1130 are not considered SIP actions under CAA Section 110 and are not published in Part 52. Instead, the approvals are published in Part 70 Appendix A, most recently, effective February 5, 2007. Section 6 of Regulation 1130 was most recently updated in 2000.
Fourth, Delaware's Title V permitting rules containing the affirmative defense cannot trump Delaware's SIP and EPA's NESHAP and NSPS requirements, which contain no affirmative defense, because those applicable requirements—unlike the state's permitting rules—are specifically designed to achieve and maintain NAAQS compliance (the SIP) and otherwise protect air quality and public health (the NESHAP and NSPS requirements). Enforcement and preconstruction permitting are vital tools that, under the Clean Air Act, states are required to address in their SIPs to achieve the NAAQS. Subject to EPA approval, states are responsible for developing SIPs and adopting the enforceable source-specific emission limits and air quality rules necessary for compliance with the NAAQS. 42 U.S.C. § 7410(a), (k). Section 110(a)(1) of the Clean Air Act generally requires SIPs to provide for enforcement. *Id.* § 7410(a)(1). To help achieve and maintain the NAAQS, SIPs must, among other things, also include enforceable emission limits and other control measures "as may be necessary or appropriate to meet the applicable requirements of [the Act]." *Id.* § 7410(a)(2)(A). To help achieve and maintain NAAQS compliance, SIPs must also include a program to provide for the enforcement of emission limits and other measures, as well as preconstruction NSR/PSD	Recent EPA guidance "Inclusion of Provisions Governing Periods of Startup, Shutdown, and Malfunctions in State Implementation Plans" dated October 9, 2020 indicates that "[a] SIP provision that creates an affirmative defense to claims for penalties in enforcement actions regarding excess emission caused by malfunctions may be consistent with CAA requirements in certain circumstances…if they are narrowly tailored so as not to undermine the fundamental requirement of attainment and maintenance of the NAAQS, or any other requirement of the CAA." The guidance goes on to explain that the availability of an affirmative defense in the Texas SIP "does not negate the district court's jurisdiction to assess civil penalties using the criteria outlined in [CAA section 113(e)],…it simply provides a defense, under narrowly defined circumstances, if and when penalties are assessed." The Regulation narrowly defines when an affirmative defense would be

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permitting program "as necessary to assure that national ambient air quality standards are achieved." *Id.* § 7410(a)(2)(C). Contrary to the requirement that SIPs ensure enforcement (including enforcement of preconstruction requirements) to maintain the NAAQS, a permit affirmative defense to liability for violations of NSR/PSD limits makes it less likely that enforcement to remedy those violations will be successful—and thus makes less likely that the NAAQS will be achieved. That is especially so when (like here) the source in question is a large source of air pollution. These concerns are also especially relevant here given this refinery's history of serious compliance problems (*see* May 2020 Comments at 4; *infra* at Part X) and the fact that the area in which the refinery is located is nonattainment for ozone and particulate matter, as well as the fact that Delaware is located in the Ozone Transport Region. Unlike many affirmative defenses, which preclude penalties if a defendant proves the relevant affirmative defense factors, the permit's defense here would preclude even injunctive relief and acts as a *de facto* exemption. Rendering the relevant NSR/PSD (as well as NESHAP and NSPS) limits unenforceable and inapplicable when DCRC proves the affirmative defense for violations occurring during malfunctions and emergencies—periods during which emissions can be massive because pollution controls may be inoperable, *see* May 2020 Comments at 4)—could adversely impact ambient air quality and thus attainment and maintenance of the applicable NAAQS. *See* 80 Fed. Reg. 33,840, 33,901 (June 12, 2015) ("'Without an enforceable emission limitation which will be complied with at all times, there can be no assurance that ambient standards will be attained and maintained.'") (quoting H.R. Rep. No. 95-294, at 92 (1977), *as reprinted in* 1977 U.S.C.C.A.N. 1077, 1170). Like Clean Air Act § 110's SIP requirements, Clean Air Act § 112's NESHAP requirements are also aimed at protecting public health. Congress required EPA to regulate the hazardous air pollutants listed under 42 U.S.C. § 7412(b) of the Act due to their "inherently harmful characteristics," even at low levels of exposure. 80 Fed. Reg. 75,025,	considered, the Commenters concerns that the affirmative defense provision would inhibit maintenance or attainment of the NAAQS is unfounded as the provision is applicable only to unavoidable scenarios and further requires expedient correction of any release incidents.

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75,031/1 (Dec. 1, 2015); S. Rep. No. 101-228, at 5 (1989), *as reprinted in* 1990 U.S.C.C.A.N. 3385, 3391. Even in small doses, these hazardous air pollutants "cause or contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness." H.R. Rep. No. 101-490, pt.1, at 315 (1990) (quotation marks omitted). Yet the permit's affirmative defense provision, on its face, would allow DCRC to avoid liability for potentially deadly and otherwise dangerous violations of NESHAP limits. Thus, the affirmative defense makes it less likely that the communities surrounding the refinery will be protected from deadly air toxics, which provides another reason that the defense must be removed from the permit, regardless whether it is contained in the state Title V rules. In sum, DNREC must remove the affirmative defense provisions from the permit. A Title V permit cannot effectively subtract—and render unenforceable—applicable substantive requirements designed to protect public health when there are violations of those requirements during malfunctions and emergencies.	
<u>B. Additional Comments Regarding the Draft Permit's Unlawful Director's Discretion Provisions Applicable During Periods of Unplanned Shutdown of the FCU, FCCU, and Their Controls</u> (pg. 8) Commenters submit these additional comments regarding the draft permit's unlawful director's discretion provisions, which purport to allow DNREC to excuse noncompliance with multiple limits during periods of unplanned shutdown of the FCU or FCCU and during shutdown or bypass of their controls. *See* May 2020 Comments at 9-14. DNREC must remove these provisions for the reasons discussed below and in our initial May 2020 comments, which we reiterate and incorporate here by reference. **First**, Commenters address DNREC's preliminary response to our initial comments regarding the director's discretion provisions, which DNREC offered in the July 14 "public hearing" regarding this Title V renewal. *See* DNREC PowerPoint at 5-6. That response offers no valid reason for retaining those provisions. There, DNREC apparently asserted that these	The comment refers to a provision that requires the DCR to justify emissions caused from unplanned shutdowns of the FCU and/or FCCU control devices. The referenced provision follows EPA's Policy Regarding Excess Emissions During Malfunctions, Startup, and Shutdown guidance. The guidance allows an enforcement discretion approach to excess emissions occurring during startup and shutdown periods. Enforcement discretion allows a regulatory body to determine whether a specific violation by a source warrants enforcement and to determine the nature of the remedy to seek for any such violation. The provision must provide that it is the facility's

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provisions follow EPA's current policy regarding excess emissions during SSM periods, and the Department argued that the provisions do not bar EPA or the public's ability to "seek enforcement through the courts." *Id.* EPA's current SSM policy as summarized in EPA's 2015 SSM SIP call, however, makes clear that these permit provisions are unlawful. In that policy, EPA explained that, while states may adopt SIP provisions that impose reasonable limits upon the exercise of enforcement discretion by state air agency personnel, "SIP provisions cannot contain enforcement discretion provisions that would bar enforcement by the EPA or citizens for any violations … if the state elects not to enforce."[20] 80 Fed. Reg. at 33,917. Here, it does not matter that the provisions provide that the draft permit "does not authorize emissions exceeding" the limits in question—or, as DNREC put it in its preliminary response to comments, that the provisions "recognize[] excess emissions as noncompliance." DNREC PowerPoint at 6. Nor does it matter that DCRC supposedly has never "elected to make use of this provision." *Id* The provisions are simply unlawful because, on their face, they appear to give DNREC the ability to shield DCRC from enforcement by EPA and the public. In its 2015 SSM guidance, EPA explained: *[I]f on the face of an approved SIP provision the state appears to have the unilateral authority to decide that a specific event is not a ''violation'' or if it otherwise appears that if the state elects not to pursue enforcement for such violation then no other party may do so, then that SIP provision fails to meet fundamental legal requirements for enforcement under the CAA. <u>If the SIP provision appears to provide that the decision of the state not to enforce for an exceedance of the SIP emission limit bars the EPA or others from bringing an enforcement action, then that is an impermissible imposition of the state's enforcement discretion decisions on other parties.</u> The EPA has previously issued a SIP call to resolve just such an ambiguity, and its authority to do so has been upheld.* 80 Fed. Reg. at 33,923-24 (citing 76 Fed. Reg. 21,639 (April 18, 2011)) (emphasis added). That is exactly the circumstance here—the permit's	responsibility to demonstrate that emissions were unavoidable, that the impact of the emissions were minimized, that the unit and monitoring systems were operated with good practice standards, and the appropriate regulatory bodies were notified. The purpose of this provision is to encourage the facility to prioritize emissions reductions when responding to an upset event and outlines the Division's expectations for an appropriate response in consideration of the environmental impact on Delaware's air quality.

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director's discretion provisions appear to unlawfully provide that the decision of DNREC not to enforce for violations of certain limits can bar EPA or the public from bringing an enforcement action. DNREC, of course, always has discretion regarding whether it wants to bring its own enforcement action, but there is no reason that this discretion needs to be addressed in the permit—especially in a way that a federal court could read to bar enforcement by EPA or the public. And, if DNREC rarely or never uses the provisions (as DNREC asserts) in a formal enforcement action, then it also makes no sense to have them in the permit, as it is completely unnecessary, even if it were otherwise lawful (which it is not, as discussed above). If DNREC wants to keep the provisions in case they might be used at some time in the future, then the Department's argument about never using them in the past is irrelevant to going forward. Moreover, DNREC has provided no evidence that DCRC has not attempted to rely on the provisions, or that having such provisions has not chilled potential enforcement action or allowed excess emissions to occur that would not have otherwise. Whether or not DNREC has not "elected to make use of this provision" in some formal manner, the permit causes harm by including the provisions and creating a disincentive to comply, by giving DCRC the ability to avoid civil liability for a violation.	
Further, it does not matter that the director's discretion provisions are not "automatic" exemptions. See DNREC PowerPoint at 6. The point is that these provisions allow DNREC to exempt violations, in which case there would unlawfully be no continuous emission limits and standards in place. *See* May 2020 Comments at 11-12. EPA's 2015 SSM policy recognized that director's discretion provisions are unlawful for this same reason—that they can result in there not being continuous limits in place. 80 Fed. Reg. at 33,927. DNREC must remove the director's discretion provisions from the permit. At the very least, DNREC must make crystal clear in the permit that any decision by the Department to forego enforcement is in no way binding	The Division disagrees that these provisions constitute an exemption. Under its most basic definition, an exemption would identify that there is not an obligation to meet permitted requirements and no liability for failure to do so. Instead, the provision specifically maintains that DCRC is required to meet all applicable permitting requirements and failure to do so could result in enforcement actions. The stated condition that the provision does not authorize emission exceedances indicates that the emission limits and operating limitations continue to apply on a

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on the public or EPA—and that the director's discretion provisions may not used by DCRC as a defense in an enforcement action brought by the public or EPA. **Second**, Commenters add this supplemental reason (and the below supplemental reason) for why DNREC must remove the director's discretion provisions from the draft permit. In their initial comments, Commenters explained that these provisions violate (among other requirements) the Clean Air Act requirement that emission limits and standards apply continuously. May 2020 Comments at 11-12. Commenters now note that the Clean Air Act's Title V also makes clear that emission limits and standards must apply continuously, rather than only during some periods of time. Specifically, 42 U.S.C. § 7661(c)(a) provides that each Title V permit "shall include enforceable emission limitations and standards," and (as explained in our initial comments) the Act defines "emission limitation" and "emission standard" as a "requirement … which limits the quantity, rate, or concentration of emissions of air pollutants *on a continuous basis*, including any requirement relating to the operation or maintenance of a source to assure *continuous emission reduction* …." 42 U.S.C. § 7602(k) (emphasis added). Read together, §§ 7661(c)(a) and 7602(k) make doubly clear that limits in Title V permits must apply on a continuous basis. Contrary to this requirement, the draft Title V permit's director's discretion provisions purport to give DNREC sole discretion to allow exemptions to limits and standards in the permit.	continuous basis and any noncompliance events must appear in required documentation and reporting as such. The conditions remain enforceable because they place the burden on the facility to demonstrate to the Department's satisfaction (rather than a predetermined checklist, for example, that may have the effect of preemptively limiting the Department's decision-making ability) that it has responded appropriately and only generally outlines the Department's expectations for an appropriate response. The Division reiterates that the purpose of this provision is not to give the DCR freedom to violate its permit, but to encourage the DCR to prioritize emissions reductions when responding to an upset event in consideration of Delaware's air quality.
Third, the director's discretion provisions are also unlawful for one of the reasons discussed above for why the permit's affirmative defense is unlawful—they violate the requirement that Title V permits must assure compliance with all applicable requirements and are contrary to the statutory purpose of strengthening enforcement. *See supra* at 4-7. Contrary to these requirements, the draft permit cannot ensure compliance with—and renders unenforceable—applicable requirements because it allows DNREC to exempt DCRC from enforcement for violations of applicable limits.	

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C. Supplemental Comments Addressing DNREC'S Preliminary Response Regarding The Permit's Provisions Unlawfully Relaxing Federally Enforceable Limits During Planned Startup and Shutdown of the FCU and FCCU and When the FCCU'S CO Boiler Is Combusting Only Refinery Fuel Gas (pg. 11) Commenters here address DNREC's preliminary response to our initial comments regarding the draft permit's provisions that relax federally enforceable limits during planned startups and shutdowns of the FCU and FCCU and when the FCCU's CO boiler is combusting only refinery fuel gas. *See* DNREC PowerPoint at 7-9. First, Commenters appreciate that DNREC has committed to, in the proposed permit, clarifying that the startup and shutdown limits do not affect the annual limits for the FCU and FCCU, *i.e.*, that startup and shutdown emissions must still be included in annual emission totals for purposes of complying with the annual limits. *See id.* at 7. Commenters support this change, which is one step towards correcting the draft permit's myriad of unlawful SSM provisions. DNREC must also make a similar change to clarify that emissions from periods when the FCCU CO boiler is combusting only refinery fuel gas also must be counted for purposes of complying with the annual limits.	Startup and shutdown periods are not excluded from the annual totals, all emissions that occur at the facility are accounted for, including but not limited to startup, shutdown, emergencies, malfunctions, maintenance, and all alternative operating scenarios. AQ will amend the provisions to clarify as shown below: (underlined text indicates insertion, strike-through text indicated deletion): FCCU: Part 2.e.1.i.H The short-term Emission Standards in Condition 3 – Table ~~1.e.4 through e.9~~ 1.e.4.i.B, e.5, e.6, e.8, and e.9 below, ~~with the exception of e.7~~, shall not apply during periods when the FCCU COB is combusting refinery fuel gas only and during periods of planned shut downs and planned start-ups of the FCCU for a period of time not to exceed 80 hours for each planned shut-down and each planned start-up event… FCU: Part 2.da.1.i.G The short-term Emission Standards in Condition 3 – Table 1.da.2 through da.10 below shall not apply during periods of planned start-up and planned shut-down of the FCU provided the planned start-up and shut down event does not exceed 116 hours…
Commenters, however, are disappointed with DNREC's other positions regarding these alternate limits. **First**, as the initial comments	The permit contains short-term limits for NO_X, CO, and HAPs from the FCCU during the Start-

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explained, DCRC could—based on the face of the permit—argue that no short-term NOx, CO, or HAP limits at all apply for the FCCU during planned startup and shutdown and when the FCCU CO boiler is combusting only refinery fuel gas. May 2020 Comments at 15. DNREC's initial response indicates that short-term limits do in fact apply for these pollutants during these periods. DNREC PowerPoint at 8. DNREC, however, must make this clear in the permit. Otherwise, these planned startup and shutdown (and refinery fuel-gas-only) provisions are unlawful for the reasons explained in the initial comments, and DCRC could, based on the current permit language, attempt to avoid enforcement for violations of the short-term limits during these periods.	up/Shutdown periods as show below. NO_X: The NO_X limit of 137 ppm on a 7-day average and 100.7 ppm on a 365-day average (Condition e.4.i.C) applies at all times including startup/shutdown periods. The text added to the exemption provision in Condition e.1.i.H makes especially clear that those limits apply at all times. Additionally, the facility-wide NO_X cap applies at all times for all NO_X producing units, and all NO_X emissions regardless of whether they are emitted during normal operation or other operating scenarios must be included in the facility-wide totals. CO: Condition e.1.i.H states, "For CO and inorganic HAP emissions during startup, shutdown, and hot standby, the following parameters will be used to comply with the inorganic HAP work practice standards specified in 40 CFR Part 63.1565(a)(5): (1) CO emissions from the catalyst regenerator vent or CO boiler must not exceed 500 ppmv (dry basis); or (2) Maintain the oxygen (O_2) concentration in the exhaust gas from the catalyst regenerator at or above 1 volume percent (dry basis)." In effect, there is no exemption from this requirement. HAP: The HCN emitted during full burn is proportional to coke burn-off. HCN compliance is based on CO compliance as shown above.
Second, apparently conceding that the alternate limits for the FCU and FCCU apply instead of certain NSPS and NESHAP limits applicable to those units (*see* May 2020 Comments at 10-11, 14-15), DNREC insists that	As explained in the preceding sections and following sections, the startup/shutdown limits for the FCU and

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the FCU and FCCU's startup and shutdown limits do not relax these federal requirements because the alternate limits are "the same or lower than federal limits, even if expressed in a different format." DNREC PowerPoint at 7. Even if the alternate limits are effectively equivalent to or lower than federal limits (which we do not concede), that is irrelevant. As explained in Commenters initial comments at pages 12-13 and 15, DNREC cannot lawfully revise NESHAP and NSPS limits. Only EPA can revise those limits. At the very least, DNREC must revise the permit to make clear that the alternate limits do not affect the NSPS and NESHAP limits applicable to the FCU and FCCU.	the FCCU do not affect any applicable federal limits. The Commenters have not identified any applicable NSPS or NESHAP provision that is contravened by the startup/shutdown condition.
Third, DNREC asserts that, "[f]or pollutants for which no short-term limit is specified, annual limits serve to ensure there is a continuous emission limit." DNREC PowerPoint at 7. This is wrong. The complete absence of any short-term limit for lead from the FCCU (and other pollutants as well, if DNREC does not make the change discussed in the second paragraph of this section) and for NOx, lead, and HAPs from the FCU means that these units are subject to *de facto* exemptions to their non-annual limits. As EPA explained in its 2015 SSM policy, "[a]lternative emission limitations applicable during startup and shutdown cannot," as here, "allow an inappropriately high level of emissions or an effectively unlimited or uncontrolled level of emissions, as those would constitute impermissible *de facto* exemptions for emissions during certain modes of operation." 80 Fed. Reg. at 33,980. EPA further explained that alternative startup and shutdown requirements "should be narrowly tailored," only apply when "[u]se of the control strategy for this source category is technically infeasible during startup or shutdown periods," and "require[] that all possible steps are taken to minimize the impact of emissions during startup and shutdown on ambient air quality." *Id.* Having no short-term limit at all for the above-listed pollutants does not meet these requirements from EPA's SSM policy—especially given that planned startups and shutdowns of the FCU are allowed to last almost five full days, and these planned	FCCU Pb: During startup/shutdown periods there is minimal to no coke-burn off from the catalyst. An emission limit based on coke-burn is meaningless and inappropriate during these periods. The absence of a short-term limit during this period can not constitute an "inappropriately high level of emissions" because a high level of coke burn is not occurring. Additionally, compliance with the coke-burn based limit is based on stack testing so this limit is not appropriate during startup/shutdown periods since stack tests are conducted only during normal operating scenarios. Further evaluation is needed of Pb which does not have an annual numerical limit during startup/shutdown periods. DCRC has proposed a limit of 0.14 TPY based on the design capacity for coke burn at this unit. The Pb limit is not a federal limit. Condition e.8.i. will be modified to include an annual limit. Emission Standard: Pb emissions from the FCCU WGS+ shall not to

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periods from the FCCU are allowed to last more than three full days. *See* May 2020 Comments at 15. Further, the absence of any non-annual limit for these pollutants means that the permit violates the Clean Air Act requirement that emission limits and standards "limit[] the quantity, rate, or concentration of emissions of air pollutants on a continuous basis." 42 U.S.C. § 7602(k). Put another way, the short-term and annual limits for these units are different "emission limitations," and having zero requirements to limit pollution on a short-term basis means that the short-term limits do not require continuous reductions in pollution during the periods in question, in violation of the statutory definition of "emission limitation" and "emission standard."	exceed 4.37 E-04 pounds per thousand pounds of coke burned and 0.14 TPY. FCU NO_X: Condition da.4..i requires an annual tune-up, and compliance with the facility-wide NO_X Cap as emission limiting measures. The facility-wide NO_X Cap is a SIP limit established in Regulation 1142 Section 2.3.2. Regulation 1142 section 2.3.1 identifies large refinery units that produce NO_X including the FCU and specifies emission standards for those units. In lieu of complying with Section 2.3.1 a facility may comply with Section 2.3.2 which establishes a facility-wide NO_X Cap and further identifies that the NO_X Cap limit includes emissions during startup, shutdown, and malfunction. The facility complies with Regulation 1142 by complying with the NO_X Cap. Regulation 1142 Section 2.3.3 reserves the Department's right to "establish [a] lower NO_X emission cap and more stringent NO_X emission limitation for any source subject to this regulation" which DNREC has exercised by establishing the short-term NO_X limits for normal operation periods. There are no other state or federal short-term NO_X requirements, the NO_X Cap in conjunction with the other non-numerical requirements serve as continuous emission limiting measures. FCU Pb: Condition da.9.i states, "Pb emission from the FCU shall not exceed 4.37 E -04 pounds per thousand pounds of coke burned and 0.12 TPY." During startup/shutdown periods there is minimal to

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	no coke-burn off from the catalyst. An emission limit based on coke-burn is not appropriate during these periods. The absence of a short-term limit during this period can not constitute an "inappropriately high level of emissions" because a high level of coke burn is not occurring. Additionally, compliance with the coke-burn based limit is based on stack testing and this limit is not appropriate during startup/shutdown periods since stack tests are conducted only during normal operating scenarios. There are no other state or federal short-term Pb requirements, the annual limits serve as a continuous emission limiting measure. FCU HAP: Condition da.10.i.A states, "Nickel (Ni) emissions shall not exceed 0.001 pounds per 1,000 pounds of coke burned and 0.27 TPY." During startup/shutdown periods there is minimal to no coke-burn off from the catalyst. An emission limit based on coke-burn is not appropriate during these periods. The absence of a short-term limit during this period can not constitute an "inappropriately high level of emissions" because a high level of coke burn is not occurring. Additionally, compliance with the coke-burn based limit is based on stack testing and this limit is not appropriate during startup/shutdown periods since stack tests are conducted only during normal operating scenarios. There are no other applicable state or federal short-term Ni requirements, the annual limits serve as a continuous emission limiting measure.

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Fourth, DNREC's preliminary response does not establish that any exemptions to short term limits or alternate limits that apply in lieu of any short-term NSR/PSD and SIP limits were established through the required routes for altering and establishing NSR/PSD and SIP limits—or that the alternate limits or exemptions that apply instead of short-term NSR/PSD limits qualify as BACT/LAER. In fact, DNREC effectively concedes that the alternate limit for PM from the FCCU does not reflect BACT or LAER: DNREC stated during the "hearing" that this limit was originally developed to accommodate an "operating scenario" that "no longer exists"—and that the alternate limit "will be reduced." July 14 Transcript at 25. DNREC must follow the required process for altering any SIP or NSR/PSD limits, and any alternate NSR/PSD limits must reflect BACT/LAER, as discussed in detail in our initial comments at pages 12 and 15-16. In particular, a complete absence of any short-term limit (as is the case with at least lead from the FCCU and NOx, lead, and HAPs from the FCU) does not constitute BACT/LAER: if no limit at all were BACT or LAER for these periods, that would mean that the best-performing FCUs and FCCUs cannot meet any short-term limits for these pollutants during these periods, which is not the case.	Firstly, the Commenters have not shown that any state or federal limit including NSR/PSD, or SIP have been altered by the permit. Secondly, if such an alteration exists, the Commenters presume that the limits do not qualify as BACT/LAER, or that the alternate limits are not more protective than the normal operation limits, however neither BACT/LAER analyses, nor the emission limit unit conversions would be included in the body of the permit but instead would appear in the Technical Memorandums that accompanied each permit when they were originally issued for public notice. Regarding Pb, as noted above, the Pb limit established by the permit is neither a SIP, nor NSR, nor PSD limit. Regarding PM, during a unit shutdown there is the potential for catalyst losses as the unit is brought down and catalyst is removed from the unit. The 500 lb/hr is based on engineering estimates of potential catalyst losses during a planned shutdown of the FCCU. During planned startups and shutdowns, the Wet Gas Scrubber (WGS) continues to operate at normal conditions and therefore continues to control PM from the unit. The 500 lb/hr PM limit accurately reflects a controlled startup/shutdown situation and fills a gap left by the coke-burn rated based limit for normal operation.

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Fifth, DNREC makes conclusory assertions that some of the alternate limits are "similar" to, "approximately" the same as, or "lower" than the "normal operation limits" for the FCU and FCCU. DNREC PowerPoint at 8-9. DNREC has not established this to be true. In particular, some of the alternate limits for which DNREC has made these (and similar) assertions—for VOCs and SO2 from the FCCU and VOCs, H2SO4, TSP, SO2, and CO from the FCU—are expressed in different terms than the normal limits for these units. All of these alternate limits are lbs/hour limits, whereas the normal limits for these pollutants are concentration, percent reduction, and/or lb/mmBtu limits. DNREC's conclusory statements do not establish that these lbs/hour limits are equivalent to or lower than the normal limits. As noted above, any alternate NSR/PSD limits must reflect BACT/LAER, and DNREC has not established that this is the case when the alternate limits are expressed in very different terms than the normal limits. DNREC must provide a technical demonstration that the relevant alternate limits are indeed just as protective as the normal limits for the FCU and FCCU. Finally, DNREC's preliminary response ignored our initial comment that the exemptions and alternate limits unlawfully attempt to remove the ability of the public and EPA to enforce, and for the court to apply penalties for, the limits applicable to the FCU and FCCU during normal operations. *See* May 2020 Comments at 13-16. Relatedly, the exemptions and alternate limits provisions are also unlawful for one of the reasons discussed above for why the permit's affirmative defense is unlawful— they violate the requirement that Title V permits must assure compliance with all applicable requirements and are contrary to the statutory purpose of strengthening enforcement.	The emission limit unit conversions would not be included in the body of the permit but instead would appear in the Technical Memorandums that accompanied each permit when they were originally issued for public notice. Startup/shutdown scenarios create a condition of low process flow, concentration-based limits such as ppm, or lb/mmscf are unsuitable under these conditions. The mass-based limits of lbs/hr sets a firm limit under these shifting flow conditions. The conversion from a concentration-based to a mass-based limit is *approximate* because while the mass-based limit is constant, the concentration-based limits shift with respect to operating parameters. FCCU VOC: Normal operation limits are 0.40 lb/mmdscf and 41.4 TPY. As previously discussed, the TPY limit applies at all times. During startup/shutdown, the emissions must meet a 9.5 lbs/hr limit. The 0.40 lb/mmdscf is approximately 9.5 lbs/hr. The limits were established based on performance testing after an emissions reduction project. FCCU SO_2: Normal operation emission limits are 25 ppm on a 365-day average, 50 ppm on a 7-day average, and 352 TPY. During planned startups and shutdowns there is a 165 lb/hr limit. With the clarification that only short-term limits are affected by the startup/shutdown provisions, the 365-day average limit and the TPY limit apply at all times.

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	The 50-ppm value is approximately 200 lbs/hr. During startup/shutdown, the emissions must meet a 165 lb/hr limit. The ppm limits were established by the 2001 Motiva Consent Decree and do not originate from an NSPS, NESHAP, NSR/PSD, or other applicable regulation. FCU VOC: Normal operation limits are 0.140 lb/mmdscf and 8.2 TPY. As previously discussed, the TPY limit applies at all times. The 0.140 lb/mmdscf is approximately 1.7 lbs/hr and was established based on performance testing following an emission reduction project. There is not an applicable NESHAP or NSPS for this pollutant at this unit. NSR/PSD is not applicable for this pollutant at this unit. FCU H_2SO_4: Normal operation emissions limits are 10 ppmvd or a 40% reduction, 67.5 lbs/hr, and 295.7 TPY. As previously discussed, the TPY limit applies at all times. The 10-ppm limit is approximately 25 lbs/hr and was established to address periods of low rates where the 40% reduction may be unachievable. These limits were established following construction of a pollution control device. During startup/shutdown, the emissions must meet a 58 lb/hr limit. There is not an NSPS or NESHAP requirement for this pollutant at this unit. NSR/PSD is not applicable for this pollutant at this unit. FCU TSP: Normal operation emissions limits are 60.9 lbs/hr, and 266.8 TPY. As previously discussed,

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	the TPY limit applies at all times. During startup/shutdown, the emissions must meet a 47.1 lb/hr limit. FCU SO2: Normal operation limits are 25 ppm on a 365-day average and 50-ppmvd on a 7-day average, and 182.3 TPY. As previously discussed, the TPY and 365-day limit apply at all times. The 50-ppm limit is approximately 95 lbs/hr. During startup/shutdown, the emissions must meet a 95 lb/hr limit. This hourly limit is more protective than one averaged over 7 days. The short-term limits are driven by the 2001 Motiva Consent Decree. There is not a NESHAP requirement for this pollutant at this unit. NSR/PSD is not applicable for this pollutant at this unit. SO_2 standards of the NSPS require this unit to combust fuel gas containing less than 10 ppm H_2S. This condition is included in the permit and does not contain an exemption. FCU CO: Normal operation emission limits are 500 ppm hourly, 200 ppm on a 365-day average, and 182.3 TPY. As previously discussed, the TPY and 365-day limit apply at all times. The 500- ppm limit is equivalent to the 415 lb/hr limit required during startup/shutdown. These startup/shutdown conditions do not reflect alterations to any applicable state or federal regulation.

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D. The Draft Permit Unlawfully Relaxes Federally Enforceable Requirements for the FCU and FCCU During Other Periods Not Discussed in Commenters' Initial Comments. Commenters' initial comments (at pages 14-16) discussed how the draft permit unlawfully relaxes limits during planned startup and shutdown of the FCU and FCCU and when the FCCU's CO boiler is combusting only refinery fuel gas. In addition to those problems, the draft permit also unlawfully relaxes limits for these two units in the following ways. **First**, the draft Title V permit could be read to provide that the FCU and FCCU are not required to comply with their normal limits during outages of some (the FCCU) or all (the FCU) of their controls, as long as they comply with certain operational requirements. For example, the permit provides that, during an unplanned shutdown or bypass of the FCCU's CO boiler, the FCCU shall comply with certain operational requirements from Attachment G to the permit. Title V Permit Condition 3 – Table 1, Part 2(e)(1)(i)(M). And another provision applicable to the FCCU (one of the permit's director's discretion provisions) states that, "*[e]xcept as provided in Operational Limitation M*" (the provision discussed in the preceding sentence), "*this permit does not authorize emissions exceeding the limits* set forth in Condition 3 Table 1.e.2 through e.9… during periods of any … unplanned shutdown or bypass" of the FCCU's CO boiler. *Id.* at Part 2(e)(1)(i)(J) (emphasis added). Coupled together, those two provisions very strongly suggest that, whenever its CO boiler is bypassed or unexpectedly shutdown, the FCCU is excused from compliance with at least CO limits—and perhaps all limits—that apply during normal operations, as long as the FCCU satisfies the operational requirements from Attachment G. Attachment G appears to excuse the FCCU, for 24 hours, from having to comply with a requirement to burn CO at 1300 °F—and perhaps other requirements as well—during unplanned shutdowns of the CO boiler (and perhaps unplanned startups as well). The attachment requires "[f]ull CO combustion operation" to minimize CO emissions within 24 hours, as well as opening of the CO boiler's bypass line to allow the FCCU's wet gas	FCCU Condition e.1.i.J states in part: Except as provided in Operational Limitation M, this permit does not authorize emissions exceeding the limits set forth in [the FCCU section] including emissions during periods of any unplanned shutdown of the FCCU, or its controls. Instead, in the event of any unplanned shutdown of the FCCU or its controls, the Owner shall bear the burden of demonstrating to the Department's satisfaction that the Owner's continued operation of the FCCU should not subject the Owner to an enforcement action for noncompliance with emission limitations or operating standards included in this Permit or otherwise applicable to the facility under 7 DE Admin. Code 1100. FCCU Condition e.1.i.M states in part: In the event of an unplanned shutdown and/or bypass of the CO Boiler, operation of the FCCU shall be in accordance with Attachment G of this permit. In the event of a planned shutdown of the CO Boiler or in the event of planned operation of the CO Boiler at firebox temperatures less than 1300 deg F, the Owner/Operator shall initiate promoted full burn in the FCCU and control CO emissions in accordance with Condition 3, Table 1.e.5.i [the FCCU CO emission limits] of this permit prior to bypassing/shutting down the CO Boiler and/or reducing the firebox temperature below 1300 deg F in the CO Boiler. During unplanned shutdowns, Attachment G requires full CO combustion be achieved within 24 hours

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scrubber to treat regenerator flue gases. In addition, Attachment G cryptically provides that "[d]uring this period (24 hours maximum), the requirements in Condition 2.1.6 and 7 DE Admin. Code 1111 shall not apply." What the requirements from "Condition 2.1.6" are is completely unclear (there is no Condition 2.1.6 in the Title V permit), and the "period" referred to is also unclear (though we presume it means the 24 hours before full CO combustion operation). 7 Del. Admin. Code 1111 requires CO to be burned at 1300oF for 0.3 seconds or greater in a direct-flame afterburner or boiler or to be controlled by an "equivalent technique." The requirement to burn CO at 1300oF is also an applicable requirement under the draft permit. Title V Permit Condition 3 – Table 1, Part 2(e)(5)(i)(B). But whether Attachment G (along with the other provisions discussed above) excuses the FCCU from compliance only with this 1300oF requirement or with other requirements as well is unclear.	either by transitioning to full burn mode or by restarting the COB. It is technically infeasible for the regenerator to transition from partial burn mode to full burn mode instantaneously. The 24-hour time period described in Attachment G defines the period for this transition to occur. This Attachment also appears in the unit-specific Regulation 1102 permit (Permit: APC-82/0981-OPERATION (Amendment 13)(NSPS)(FE)) for the FCCU (where it is titled Attachment A). Condition 2.1.6 in the Reg 1102 permit most closely corresponds to the CO emission limits of Condition e.5.i.A and B. This text was directly transcribed into the Title V permit and should have been modified to indicate the appropriate Title V conditions. This will be corrected with the following. "…During this period (24 hours maximum), the short-term emission limit ~~requirements~~ in Part 2 Condition ~~2.1.6~~ 3- Table 1.e.5.i.A, the requirements of Condition 3-Table 1.e.5.i.B and 7 DE Admin. Code 1111 shall not apply." The CO short-term emission limit in condition e.5.i.A is 500 ppmv dry as a 1-hr average. It is based on Subpart J which does not address startup/shutdown emissions. Instead Subpart A of the NSPS states " Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the

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	applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard." While Subpart J explicitly states that certain SO_2 emissions apply at all times including startup, shutdown, and malfunction, it does not make the same provision for CO. The CO emission standard in condition e.5.i.B is to combust CO at no less than 1300 °F for 0.3 seconds. This is based on the provision of 7 DE Admin. Code 1111. The provisions of 7 DE Admin. Code 1111 Section 2.0 to combust CO at 1300 °F do not apply because per Section 1.0, the regulation does not apply to the start-up and shutdown periods of a unit governed by an operation permit. Attachment G of the permit details the operational requirements necessary to reduce emissions during unplanned shutdowns of the COB, including reducing the throughput to reduce resultant CO emissions, and limiting the shutdown period to more than 24 hours by switching to an operating scenario that does not require use of the COB. However, while the CO provisions in Part 2 – Condition 1.e.5.i may not apply, this does not affect the applicability of NESHAP Part 63 UUU (reproduced in Condition e.1.i.H) which requires demonstrating CO emissions of no more than 500 pm or the oxygen concentration in the exhaust at or above 1 volume percent.

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In addition to excusing the FCCU from compliance during unplanned shutdowns of the CO boiler, Attachment G also suggests that the FCCU is excused from compliance with normal limits during unplanned startups of the CO boiler, stating that it applies "when the CO Boiler experiences an unplanned start-up or shut-down event."	Unplanned startups refer to startups that occur after an unplanned shutdown. While the start-up is not necessarily unplanned in the same way that unplanned shutdowns are, they refer to the same scenario. Attachment G does not have specific requirements for unplanned startups and references to this scenario will be removed.
In addition to unplanned startups and shutdowns of the CO boiler, Operational Limitation M" also suggests that the FCCU is excused from compliance with its normal CO limits during planned shutdown of the CO boiler or planned operation of the boiler at firebox temperatures less than 1300oF. Limitation M states that, during these planned periods, DCRC is to "initiate promoted full burn" in the FCCU and control CO emissions in keeping with the requirements from Condition 3 – Table 1, Part 2(c)(5)(i) (the CO limits that apply during normal operations) prior to bypassing or shutting down the CO boiler or reducing the temperature below 1300oF. This very strongly suggests that the normal CO limits do not apply during planned shutdowns of the CO boiler or planned operation of the boiler at temperatures below 1300oF.	FCCU Condition e.1.i.M states in part: In the event of a planned shutdown of the CO Boiler or in the event of planned operation of the CO Boiler at firebox temperatures less than 1300 deg F, the Owner/Operator shall initiate promoted full burn in the FCCU and control CO emissions in accordance with Condition 3, Table 1.e.5.i [the FCCU CO emission limits] of this permit prior to bypassing/shutting down the CO Boiler and/or reducing the firebox temperature below 1300 deg F in the CO Boiler. There are two normal operating scenarios for the FCCU; partial burn, which results in higher CO emissions requires a control device i.e. the Carbon Monoxide Boiler (COB), to reduce CO emissions; and full promoted burn, which results in lower CO emissions comparable to the controlled emissions of partial burn, and requires bypassing the COB for proper operation. Condition M describes the sequence in which this transition occurs. It ensures that before planned bypasses or shut downs of the COB the DCR must first switch to full promoted burn

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	so that CO is appropriately controlled at all times, then proceed with the bypass or shutdown of the COB once the control device is no longer necessary. If the COB was bypassed/shut down first, then CO would be emitted uncontrolled or only partially controlled as the shutdown is completed and the transition to promoted full burn made. Promoted full burn is a normal operating scenario subject to the limits for normal operation.
The draft permit also includes similar provisions applicable to the FCU. It provides that the FCU—within 24 hours after commencement of operation of its backup incinerator and outages of its controls (the CO boiler, Belco prescrubber, and wet gas scrubber)—must, "at a minimum," meet certain operational limits. Those operational limits include very high hourly SO2 limits ranging from 2,961-4,441.5 lbs/hour, depending on the feed weight "% S." Title V Permit Condition 3 – Table 1, Part 2(da)(1)(i)(c). While the effect of this provision is unclear, it could be read to mean that the FCU is not required to comply with its normal limits during these outage periods—including allowing the FCU to comply only with SO2 limits that are much higher than the SO2 limits that apply during normal operations, and excusing the FCU from complying with any limits at all for other pollutants. In particular, if the FCU emitted at the lowest of the hourly SO2 rates listed in this provision (2,961 lbs/hour) for an entire year, it would emit 12,969.18 tons of SO2—over 70 times its annual limit of 182.3 tons/year from Part 2(da)(3)(i)(A). There are also CO and PM-related operational limits and an alternate PM limit that apply when the FCU's backup incinerator is operated. *Id.* At Part 2(da)(1)(i)(H)(1). Although the effect of this provision is also unclear, it could also be read to mean that the FCU is not required to comply with its normal CO and PM limits during these periods.	Comparison of short-term and annual limits is inappropriate as they serve different functions and the annual limits apply at all times for all scenarios. The FCU has two methods of controlling emissions; the CO boiler and Belco scrubber chain, and the Back-up Incinerator (BUI). The permit is structured to require use of the COB and Belco scrubber chain at all times. During outages of the COB, the BUI can be used to control CO and PM emissions. This condition (da.1.i.E) describes the operational requirements and emission limitations for SO_2 when the BUI is in use. Since flue is routed through the COB to the Belco scrubber set, an outage of the COB means flue gas is no longer reaching the Belco scrubber set which controls SO_2. While the BUI can control CO and PM emissions there is no equipment to control SO_2 during a COB bypass, this condition requires SO_2 emissions to be mitigated through feed rate reductions. The 24-hour time period describes the start-up procedures for the BUI to come up to the

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	necessary temperature to control emissions as well as allows for rate-reduction processes to be conducted in a safe and proper manner. This condition does not at all address other emission standards, either to exempt or establish any other requirements, other than to establish SO_2 mitigating operation limits. Additional requirements are, however, listed in Condition da.1.i.H. Condition da.1.i.H.1 describes operational requirements during unplanned shutdowns. This condition "…does not authorize emissions exceeding the limits set forth in Condition 3-Table 1.da.2 through da.10 [the FCU section of the permit] including emissions during periods of any unplanned shutdown of the FCU, or any unplanned shutdown or bypass of the FCU COB or the Belco prescrubber or WGS…" Condition da.1.i.H.1 does not set overriding CO and PM limits, but does establish minimum requirements for operation of the BUI since the BUI is necessary to control CO and PM emissions during COB outages. Failure to meet the BUI limits during a COB outage lasting longer than 24 hours would be in violation of the BUI emission limits in addition to the other emission standards of the FCU section.
As discussed in our May 22, 2020 comments (at pages 10-11), the limits that apply during normal operations of the FCCU and FCU units are a combination of SIP, PSD/NSR, NESHAP, and NSPS limits. *See id.* At Parts 2(da)(2)-(9), 2(e)(2)-(9). In particular, the FCCU's 500 ppmv CO limit under Part 2(e)(5)(i)(A) is also the limit that applies to FCCUs under the NESHAP and NSPS regulations.	The Commenters continue to reference the 500 ppm limit for the FCCU however the limit in the permit is 500 ppm for normal operations (Condition e.5.i.A) and 500 ppm during startup/shutdown periods (Condition e.1.i.H), and 500 ppm during transition between full and partial burn.

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And the FCU's 50 ppmvd SO2 limit (with a rolling averaging period of 7 days) and 25 ppmvd SO2 limit (with a rolling annual averaging period) under Part 2(da)(3)(i)(A) are NSPS Subpart Ja limits for FCUs from 40 C.F.R. § 60.102a(b).	The FCU is not subject to Ja because it has not commenced construction, modification or reconstruction after May 14, 2007, or elected to comply with the provisions of Ja in lieu of complying with the provisions in subpart J. The short-term ppm limits are driven by the 2001 Motiva Consent Decree.
To the extent the above-discussed provisions from the draft permit, during outages of the FCCU's and FCU's controls or other periods, relax the limits normally applicable to these units and purport to instead allow the units to comply with certain operational requirements (or alternative limits), the provisions are unlawful. They are unlawful first because they could be read to alter at least NESHAP and NSPS limits—and perhaps SIP and NSR/PSD limits as well—through a process that is contrary to the required process for establishing and revising these limits. For more details on why this is unlawful, see our initial comments on the draft permit, which we incorporate here by reference. *See* May 22, 2020 comments at 12-14. As appears to be particularly relevant here, only EPA—not DNREC—can revise NSPS or NESHAP limits. In addition, these draft permit provisions could be read to—during outages of the FCCU's and FCU's controls—unlawfully remove the ability of the public and EPA to enforce (including through penalty awards) the limits that are applicable to these units during normal operations. For more details on this argument, we again refer DNREC to our initial comments on the draft permit. *See* May 22, 2020 Comments at 13-14. Relatedly, the provisions are also unlawful for one of the reasons discussed above for why the permit's affirmative defense is unlawful—they violate the requirement that Title V permits must assure compliance with all applicable requirements and are contrary to the statutory purpose of strengthening enforcement. And to the extent these limits alter NSR/PSD limits, they are unlawful because they allow compliance with alternative operational	The Commenters have not identified any NESHAP, NSPS, SIP, or NSR/PID limits for which the FCCU or FCU is applicable that has been altered. The referenced conditions require emission reductions during unplanned shutdowns of the control devices. Without these conditions, during repair of the control devices, emissions could be released uncontrolled and/or unmitigated. These conditions are not exemptions from applicable normal operating limits.

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requirements during periods of malfunction and maintenance. Any unplanned outage of controls would presumably constitute or be the result of a malfunction, and any planned outage of controls would presumably be for maintenance. Yet EPA has stated that alternative BACT/LAER limits are not justifiable for periods of malfunctions or scheduled maintenance—and that maintenance activities should be scheduled "during process shutdown." *See, e.g., Order Granting in Part and Denying in Part Petition for Objection to Permit, In the Matter of Southwestern Electric Power Co., H.W. Pirkey Power Plant*, Petition No. VI-2014-01 ("Pirkey Order") (Feb. 3, 2016) at 12, https://www.epa.gov/sites/production/files/2016-02/documents/pirkey_response2014.pdf. To the extent the above-discussed draft permit provisions provide exemptions to the limits normally applicable to the FCCU and FCU, these exemptions are unlawful for all of the same reasons that the director's discretion provisions for these units are unlawful: (1) they violate the Clean Air Act requirement that emission limits and standards apply continuously; (2) they purport to alter at least SIP, NESHAP, and NSPS limits through a process that is contrary to the required process for establishing and revising these limits;26 (3) they attempt to remove the ability of the public and EPA to enforce, and for a court to apply penalties, for the limits applicable to these units during normal operations; and (4) they violate the requirement that Title V permits must assure compliance with all applicable requirements and are contrary to the statutory purpose of strengthening enforcement. *See* May 22, 2020 Comments at 11-14; *supra* at 4-7, 10.	
In addition, in Part 2(e)(1)(i)(I), the draft permit includes a provision that is identical to the FCCU's "Operational Limitation M"—except it provides that: (1) during an unplanned shutdown or bypass of the FCCU's CO boiler, the FCCU shall comply with "Attachment 'A' of Permit: APC-82/0981-OPERATION (Amendment 9) (NSPS) dated April 30, 2012" instead of Attachment G to the draft Title V permit; and (2) during planned shutdown of the CO boiler or planned operation of the boiler at firebox temperatures	This condition (e.1.i.I) is found in the unit-specific Regulation 1102 permit for the FCCU (Permit: APC-82/0981-OPERATION (Amendment 13)(NSPS)(FE)) as Condition 2.4, it is essentially identical to Condition (e.1.i.M). This text was inadvertently directly transcribed into the Title V permit and

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less than 1300oF, DCRC is to control CO emissions in keeping with "Condition 3, Table 1.e.5.i of Permit: AGM-003/00016" instead of the requirements from the draft Title V permit's Part 2(e)(5)(i). This provision is even more problematic than "Operational Limitation M" because Attachment A of the referenced April 2012 permit and "Permit: AGM-003/00016" are not attached to the draft Title V permit. Thus, there is no way for the public to know what operational requirements from these other permits apply during periods that the CO boiler is shut down or bypassed—or whether these other permits may excuse the FCCU from compliance with its normal limits in ways that are not specified in the draft Title V permit. In sum, DNREC must remove the provisions that apply during outages of the FCU's and FCCU's controls. If DNREC maintains that it is appropriate to keep these provisions in the permit, it must explain in detail how these provisions affect the FCU's and FCCU's limits that apply during normal operations, since that is unclear from the face of the permit. At the very least, DNREC must make clear in the Title V permit that these provisions do not affect NSPS or NESHAP limits that apply to the FCU and FCCU.	duplicates the text in Condition M. This condition will be removed.
Second, relatedly, the permit is written in a way that strongly suggests that many of the limits listed for the FCCU and FCU only apply when particular controls are being operated. For example, the draft permit provides that the following are limits for emissions from the FCCU's "WGS[27] + system" or "FCCU WGS+"—instead of limits for the FCCU: the PM limits of 1 lb/1,000 lb of coke burned and 203 TPY; the SO2 limits of 25 ppmvd on a rolling 365-day average, 50 ppmvd on a rolling 7-day average, and 352 TPY; the CO limits of 500 ppmvd and 3,085 TPY; the VOC limits of 0.40 lb/mmdcsf and 41.4 TPY; and the sulfuric acid, lead, and hydrogen cyanide limits listed in the permit. Title V Permit Condition 3 – Table 1, Part 2(e)(2a), (3), (5)-(9). Likewise, the permit provides that the following are limits for emissions from the FCU's wet gas scrubber—instead of limits for the FCU:	The permit requires operation of its control devices when the process unit is operating. As control devices were installed, from the carbon monoxide boiler (COB), to the wet gas scrubber (WGS), to the expanded WGS system (WGS+), the Title V permit and the underlying Regulation 1102 permits were updated to indicate installation of the control devices and the resulting emission limit reductions. Condition da.1.i.C states "The Belco pre-scrubber, the amine-based Cansolv regenerative WGS, the caustic polishing scrubber and SNCR system shall

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the CO limits of 500 ppm on an hourly average, 200 ppm on a rolling 365-day average, and 694.4 TPY; the VOC limits of 0.14 lb/mmDSCF and 8.2 TPY; and the sulfuric acid limits of 67.5 lb/hr and 295.7 TPY. Id. At Part 2(da)(5)-(7). And the only PM limits listed are for the FCU's CO boiler and wet gas scrubber (along with the FCU's startup heater and superheater). Id. At Part 2(da)(2a). The draft permit lists no PM limits for the FCU itself. If these various limits truly only apply when the controls for the FCU and FCCU are being operated, then these provisions of the draft permit are unlawful for all of the reasons the director's discretion provisions are unlawful: (1) they violate the Clean Air Act requirement that emission limits and standards apply continuously; (2) they alter limits through a process that is contrary to the required process for establishing and revising these limits; (3) they unlawfully remove the ability of the public and EPA to enforce (including through penalty awards) these units' limits; and (4) they violate the requirement that Title V permits must assure compliance with all applicable requirements and are contrary to the statutory purpose of strengthening enforcement. *See* May 22, 2020 Comments at 11-14; *supra* at 4-7, 10. Regarding the second of these reasons, since some of the limits in question are also NSPS and NESHAP limits (*see* May 22, 2020 comments at 10-11), the draft permit could be read to mean that these units' NESHAP and NSPS limits only apply when their controls are operable. But that is clearly not the case under EPA's NESHAP and NSPS regulations; except for certain specific periods discussed in those regulations, the NESHAP and NSPS limits apply at all times. For example, the NESHAP PM limit of lb/1,000 lb of coke burned applies to FCCUs—not just to the controls for FCCUs. *See* 40 C.F.R. § 63.1564; 40 C.F.R. Part 63, Subpart UUU, Table 1. And the only periods that limit possibly does not apply are startup, shutdown, and hot standby (when refiners can choose to comply with an alternative limit) or during periods of planned maintenance preapproved by the applicable permitting authority according to the requirements in § 63.1575(j). *See* 40 C.F.R. § 63.1565(a)(4)-(5).	be operating properly at all times when the FCU is operating." Condition e.1.i.D states "During planned start-ups of the FCU, the FCU COB and WGS shall be operating prior to introducing feed into the reaction section of the FCU." Condition e.1.i.B states in part "…the Belco pre-scrubber, the amine-based Cansolv regenerative WGS, and the caustic polishing scrubber shall be operating properly at all times when the FCCU is operating." Condition e.1.i.C states in part "During planned start-ups of the FCCU, the FCCU COB and WGS shall be operating prior to introducing feed into the riser reactor of the FCU…" The permit correctly identifies the emission points of the unit as the stacks and vents of the control devices. Operating without control devices would be a violation of the permit, and the resulting emission exceedance would also be a violation of the permit. Additionally, any emissions from any other point not explicitly defined in the permit would require an enforcement investigation to determine whether a violation is appropriate and the basis. Emission exceedances would be a violation of the permit, while unauthorized emissions would be in violation of the statutes and Regulation 1102 prohibiting releases from unauthorized areas without first obtaining a permit.

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Finally, if these various limits do not apply when the controls for the FCU and FCCU are inoperable, the draft permit is also unlawful for an additional reason with respect to any NSR or PSD limits: limits that only apply when controls are operated do not reflect BACT or LAER. DNREC should revise the permit to make clear that these various limits apply at all times, even when the units' controls are inoperable. At the very least, DNREC must make clear in the Title V permit that the NSPS or NESHAP limits that apply to the FCU and FCCU also apply when those units' controls are inoperable. DNREC should also remedy any similar problems in the draft permit as they may apply to other units at the refinery.	
Third, the draft permit unlawfully provides for alternative NOx limits during malfunctions and maintenance of the FCCU's SNCR. Specifically, the permit provides that the SNCR is to be operated at all times except during periods of malfunctions and planned maintenance, and the permit also provides limits for periods of "proper operation of the SNCR" (108.2 ppmvd on a 7-day rolling average and 79.6 ppmvd on a 365-day rolling average) and separate higher limits (137.0 ppmvd on a 7-day rolling average and 100.7 ppmvd on a 365-day rolling average) for "all times" (*i.e.*, periods of malfunction and maintenance when the SNCR is not operated). Title V Permit Condition 3 – Table 1, Part 2(C)(1)(i)(N), 2(C)(4)(i)(B)-(C). The limits in question appear to be nonattainment NSR limits. As discussed above, alternative BACT/LAER limits are not justifiable for periods of malfunctions or scheduled maintenance, and maintenance activities should be scheduled "during process shutdown." *See, e.g.,* Pirkey Order at 12. DNREC should revise the permit to remove the alternate, higher limits that apply when the SNCR is not operated. Instead, the 108.2 ppmvd (7-day rolling average) and 79.6 ppmvd (365-day rolling average) limits should apply at all times.	The NO_X limits are not NA-NSR limits. Regulation 1142 section 2.3.1 identifies large refinery units that produce NO_X including the FCCU and specifies emission standards for those units. In lieu of complying with Section 2.3.1 a facility may comply with Section 2.3.2 which establishes a facility-wide NO_x Cap and further identifies that the NO_x Cap limit includes emissions during startup, shutdown, and malfunction. The facility complies with Regulation 1142 by complying with the NO_x Cap. Regulation 1142 Section 2.3.3 reserves the Department's right to "establish [a] lower NO_x emission cap and more stringent NO_x emission limitation for any source subject to this regulation" which DNREC has exercised by establishing the short-term NO_x limit of 108.2 ppmvd on a 7-day rolling average and 79.6 ppmvd on a 365-day rolling average, and 137.0 ppmvd on a 7-day rolling average and 100.7 ppmvd on a 365-day rolling average for normal operation periods.

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	The higher limits are based on emission limits prior to installation of the SNCR and the permit identifies specific time periods where the facility may comply with the NO_x Cap via this limit. The majority of the time, the facility must comply with the NO_x Cap through the lower limits necessitating use of the SNCR control device.
Fourth, the draft permit could be read to unlawfully provide an alternative NESHAP limit during malfunctions of the FCCU where none exists in the NESHAP regulations. Specifically, the permit suggests that—instead of complying with the NESHAP CO limit of 500 ppm during startup, shutdown, malfunction, and hot standby—the FCCU can comply with an alternative limit of maintaining the O2 concentration in the exhaust gas from the regenerator overhead at or above 1 volume percent. *See* Title V Permit Condition 3 – Table 1, Part 2(e)(9)(iii)(B)-(C). Under the NESHAP regulations, however, this alternative limits only applies during startup, shutdown, and hot standby—not malfunctions. 40 C.F.R. 63.1565(a)(5). While the draft permit's alternative limit during malfunctions could possibly only apply to the FCCU's HCN limit of 45 lb/hr, the draft permit is unclear whether the alternative limit also applies to the CO limit. DNREC cannot relax EPA's NESHAP requirements, including the applicability of the 500 ppm CO limit; only EPA may revise its regulations. *See* May 22, 2020 comments at 12-14. Thus, DNREC should delete the language that allows compliance with the alternative limit during malfunctions.	Condition e.9 is the Hazardous Air Pollutants section for the FCCU. Condition e.9.i describes Emission Standards set in 40 CFR, Part 63, Subpart UUU, and sets an HCN emission limit of 45 lb/hr. Section e.9.iii describes the Compliance Methods of meeting the HAP emission standards of Condition e.9.i as follows. A. Compliance with the Emission Standard A shall be based on monitoring/testing and recordkeeping requirements. B. Compliance with Emission Standard B shall be based on compliance with CO emission limit as specified in Condition 3 – Table 1.e.5.i.A. C. Alternatively, during startup, shutdown, malfunction and hot standby events, compliance may be demonstrated based on the work practice standard to maintain the Oxygen (O_2) concentration in the exhaust gas from the regenerator overhead at or above 1 volume percent (dry basis).

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	The subject of Compliance Method B is the 45 lb/hr limit, as Compliance Method C is a continuation of Compliance Method B, the subject of Compliance Method C is clearly also the 45 lb/hr limit. These conditions are housed in the FCCU HAP section of the permit, it is unreasonable to presume that it modifies the CO limits of a different section rather than the sentence directly preceding.
E. The Draft Permit Provides Unlawful Startup and Shutdown Exemptions for the Crude Unit Heaters, Boiler 80-2, and Combined Cycle Units. (pg 18) The draft permit also unlawfully exempts the crude unit atmospheric tower heater (21-H-701) and crude unit vacuum tower heater (21-H-2) from compliance with limits during startup and shutdown periods. Specifically, the permit provides that the "emission standards in conditions (c)(2) through (c)(6) [] shall not apply for a period of twenty-four (24) hours from the time that fuel gas flow is started to the heater and for a period of twenty-four (24) hours from the time that black oil charge to the crude unit is stopped." Title V Permit Condition 3 – Table 1, Part 2(c)(1)(i)(D). The "emission standards in conditions (c)(2) through (c)(6)" include short term and annual limits for PM, SO_2, NO_x, CO and VOCs from the crude unit atmospheric tower heater and the vacuum tower heater.	Crude Unit The annual limits apply continuously. The referenced condition will be clarified through the following insertion: Condition c.1.i.D – The short-term emission standards in conditions (c)(2) through (c)(6) below shall not apply for a period of twenty-four (24) hours from the time that fuel gas flow is started to the heater and for a period of twenty-four (24) hours from the time that black oil charge to the crude unit is stopped.
The draft Title V permit also could be read to provide a startup/shutdown exemption for Boiler 80-2, which the permit refers to as Boiler 2. Specifically, the permit provides: "Except during periods of startup and shutdown, the burner steam injection and flue gas recirculation systems in Boiler 2 shall be working in a manner consistent with maintaining 0.04 lb/MMBtu NOx on a 24-hour rolling average." *Id.* at Part 3(a)(2)(i)(E). 0.04 lb/mmBtu is the NOx limit for Boiler 2. *Id.* at Part 3(a)(5)(i)(C)(2).	Boiler 2 Regulation 1142 section 2.3.1 identifies large refinery units that produce NO_X including Boiler 2 and specifies emission standards for those units, one of which is 0.04 lb/mmbtu on a 24-hour rolling average basis. In lieu of complying with Section 2.3.1 a facility may comply with Section 2.3.2 which establishes a facility-wide NO_X Cap and further identifies that the NO_X Cap limit includes emissions

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	during startup, shutdown, and malfunction. The facility complies with Regulation 1142 by complying with the NOx Cap (permit conditions Part 3 – a.5.i.A, a.5.ii, a.5.iii.A, a.5.iv.C and a.5.v.) Regulation 1142 Section 2.3.3 reserves the Department's right to "establish lower NO_X emission cap and more stringent NO_X emission limitation for any source subject to this regulation" which DNREC has exercised by establishing the short-term NO_X limit of 0.04 lb/mmbtu for normal operation periods.
In addition, the draft permit exempts combined cycle units 84-1 and 84-2 from compliance with their short-term CO concentration limits during startup and shutdown. The permit provides that the units' hourly CO limits of 0.0202 lb/mmBtu (when firing only natural gas) and 0.0261 lb/mmBtu (when firing "NG" in the units and refinery fuel gas in the duct burners) "shall not apply for two hours following startup or for two hours preceding shutdown of the combustion turbines and/or duct burners." *Id.* at Part 3(d)(5)(i)(B)-(C). During these periods, the refinery is only required to comply with a general duty to "follow good air pollution control practices to minimize CO emissions." *Id.* These startup and shutdown exemptions are unlawful because they violate the Clean Air requirement that emission limits apply continuously, not only during some periods of time. *See, e.g.*, 42 U.S.C. § 7602(k) (defining "emission limitation" and "emission standard" as a "requirement … which limits the quantity, rate, or concentration of emissions of air pollutants *on a continuous basis*, including any requirement relating to the operation or maintenance of a source to assure *continuous emission reduction*, and any design, equipment, work practice or operational standard promulgated under this chapter") (emphasis added); *Sierra Club v. EPA*, 551 F.3d 1019 (D.C. Cir. 2008). *See also* May 22, 2020 Comments at 11, 16 (providing additional explanation and citations	<u>Combined Cycle Units</u> The annual limits apply at all times. The referenced condition specifically calls out the "concentration" limits of Part 3 – Condition d.5.i.B; it does not provide an exemption from the annual limit in Condition d.5.i.B.<u>5</u>. Per EPA's "Final Rule: State Implementation Plans: Response to Petition for Rulemaking; Restatement and Update of EPA's SSM Policy Applicable to SIPs; Findings of Substantial Inadequacy; and SIP Calls to Amend Provisions Applying to Excess Emissions During Periods of Startup, Shutdown and Malfunction" dated June 12, 2015 section vii.A.1 it states in part "SIP emission limitations: (i) Do not need to be numerical in format; (ii) do not have to apply the same limitation (*e.g.,* numerical level) at all times; and (iii) may be composed of a combination of numerical limitations, specific technological control requirements and/or work practice requirements, with each component of the emission limitation

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regarding the unlawfulness of exemptions). Further, the doas-you-see-fit general duty provision applicable to the combined cycle units during startup and shutdown is materially indistinguishable from the general duty provision that the D.C. Circuit held to unlawfully constitute an exemption in the *Sierra Club* case. *See* 551 F.3d at 1019, 1026-28.	applicable during a defined mode of source operation… the emission limitation as a whole must be continuous, must meet applicable CAA stringency requirements and must be legally and practically enforceable."
The exemptions for the crude unit heaters are also unlawful because they apparently revise SIP and NSPS limits[29] through a process that is contrary to the Clean Air Act's process for establishing and revising these limits. The startup and shutdown exemptions are not found in either the relevant SIP or NSPS provisions applicable to these heaters.[30] DNREC has not followed the required SIP revision process to change any SIP limits. *See* 42 U.S.C. § 7410(i); 40 C.F.R. § 51.105. *See also* May 22, 2020 Comments at 12 (providing additional explanation and citation regarding altering SIP and NSPS limits). And only EPA—not DNREC—can revise NSPS requirements. *See* 42 U.S.C. § 7411(b)(1)(B). Further, the same argument applies for any PSD/NSR limits—which appear to include the boiler and combined cycle unit limits discussed above—if DNREC did not establish the exemptions through the required process for establishing PSD/NSR limits in the first place (including the required public participation and establishing that the exemptions reflect BACT or LAER, which they do not), as explained in our May 22, 2020 comments at pages 12 and 16. In addition, the exemptions are unlawful because they attempt to remove the ability of the public and EPA to enforce, and for a court to apply penalties, for the limits applicable to these units during normal operations. See our May 22, 2020 comments at pages 13-14 for additional explanation and citations. Finally, the exemptions are also unlawful because they violate the requirement that Title V permits must assure compliance with all applicable requirements and are contrary to the statutory purpose of strengthening enforcement. *See supra* at 4-7. To remedy these problems, DNREC should remove these exemptions from the permit.	Crude: The following short-term limits apply; PM: 0.02 lb/mmbtu and 60.9 TPY The most applicable PM regulation is found in Regulation 1104 which in Section 2.1 and 2.2 allows emissions up to 0.3 mm/btu on a 2-hr average and 30-day rolling average respectively. The permitted limit is well below this regulatory requirement. Additionally, Condition 1.5 of this regulation provides an exemption from this emission limit for "start-up and shutdown of equipment which operates continuously or in an extended steady state when emission from such equipment during start-up and shutdown are governed by an operation permit issued pursuant to the provisions of Section 2.0 of 7 DE Admin. Code 1102." The unit is governed by a permit which provides a rolling-12 month limit which includes emissions from startup and shutdown, operational limits on the type of fuel allowed to be combusted including during periods of startup and shutdown, and a duration limit on how longer startup and shutdown periods may last. SO_2: H_2S in fuel less than 0.1grain/dscf, 3-hr rolling average 0.063 lb/mmbtu, and 80.4 TPY. The startup-shutdown exemption shall not apply to

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	this condition with this clarifying language: "This emission standard shall not constitute a "short-term emission standard" for purposes of Part 2 – c.1.i.D." The H_2S content of the natural gas and/or desulfurized refinery fuel gas is determined upstream of this unit and is not affected by the operating status of the unit. NO_x: 0.04 lb/mmbtu 3-hr rolling average, 20 lb/hr on a 24-hr rolling average and the NOx Cap Subpart J does not contain NSPS requirements for NO_X. The DCR is following the SIP requirements of Regulation 1142 Section 2.3.2 (the N_{Ox} Cap) as described in previous sections. CO: 0.03 lb/mmbtu and 91.4 TPY Subpart J does not contain NSPS requirements for CO from the Crude Unit. Seven DE Admin. Code 1111: *CO Emissions form Industrial Process Operations New Castle County* requires CO generated at a petroleum process to be burned at 1300 °F or controlled by an equivalent technique. This regulation provides a start-up and shutdown exemption for equipment which operates continuously or in an extended steady-state where startup/shutdown emissions are governed by an operation permit. The clarification addressed earlier indicates that the startup/shutdown emissions must be included in the annual totals. VOC: 0.003 lb/mmbtu and 9.2 TPY; LDAR requirements of NSPS Part 60 Subpart GGG.

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	The LDAR requirements apply at all times. The clarifying language will be added "The provisions of 40 CFR Part 60 Subpart GGG, Part 63 Subpart CC, and LDAR requirements of the Motiva CD shall not be considered "short-term emission standards for purposes of Part-2 Condition c.1.i.D of this permit." Subpart J does not contain NSPS requirements for VOC from the Crude Unit. The VOC standards of Regulation 1124 Sections 28 and 29 are not applicable to the Crude Unit. The referenced crude unit permits are not PSD permits because they were not developed as part of a major modification that increased emissions. Instead, the permits were most recently modified to reduce NO_x emissions as part of the "Upgrade and Optimization Project". The Boiler and Combined Cycle Units emissions limits as they relate to start-up and shutdown are addressed in the following sections.
F. The Draft Permit Provides Unlawful Alternate Limits That Apply During Maintenance and Malfunctions of Boilers 80-3 and 80-4. (pg 20) The draft Title V permit also contains unlawful provisions that allow Boilers 80-3 and 80-4, which the permit refers to as Boilers 3 and 4, to comply with alternate, higher NOx limits during maintenance and malfunctions. Specifically, the permit allows these two boilers to comply with a limit of 0.2 lb/mmBtu—instead of their normal 0.13 lb/mmBtu limit (with a 24-hour rolling averaging period)—during malfunctions, planned maintenance, or "steam emergency or other abnormal steam demand scenarios" for up to	Regulation 1142 section 2.3.1 identifies large refinery units that produce NO_X including Boilers 3 and 4 and specifies emission standards for those units. In lieu of complying with Section 2.3.1 a facility may comply with Section 2.3.2 which establishes a facility-wide NO_X Cap and further identifies that the NO_X Cap includes emissions during startup, shutdown, and malfunction. The facility complies with Regulation 1142 by complying with the NO_X Cap (permit conditions a.5.i.A, a.5.ii, a.5.iii.A, a.5.iv.C and

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seven days. Title V Permit Condition 3 – Table 1, Parts 3(a)(2)(i)(L), 3(a)(5)(i)(C)(3), (5). "Steam emergency/abnormal steam demand" is defined as "an upset of the refinery steam header system resulting in the need for operating steam generating sources to significantly or rapidly adjust their loads to attempt to maintain or restore stable operations." *Id.* Put another way, a period of "steam emergency/abnormal steam demand" is a period of malfunction, and these malfunctions can last for up to seven days. These alternate limits during maintenance and malfunction (including "steam emergency/abnormal steam demand" periods) are unlawful. The 0.13 lb/mmBtu NOx limit that normally applies to these boilers is presumably a nonattainment NSR limit. As discussed above, alternative BACT/LAER limits are not justifiable for periods of malfunctions or scheduled maintenance, and maintenance activities should be scheduled "during process shutdown." *See, e.g.,* Pirkey Order at 12. In addition, the permit allows these two boilers to comply with the 0.2 lb/mmBtu limit for up to six hours during planned startup and shutdown. Title V Permit Condition 3 – Table 1, Parts 3(a)(2)(i)(K), 3(a)(5)(i)(C)(3)-(4). To the extent these alternate startup and shutdown limits were not established through the required process for establishing NSR limits in the first place, they are unlawful, as explained in our May 22, 2020 comments at pages 12 and 16. To remedy these problems, DNREC should remove the permit provisions allowing these boilers to comply with the alternate 0.2 lb/mmBtu limit during maintenance, malfunction, startup, shutdown, and "steam emergency or other abnormal steam demand scenarios."	a.5.v.). Regulation 1142 Section 2.3.3 reserves the Department's right to "establish [a] lower NO_X emission cap and more stringent NO_X emission limitations for any source subject to this regulation." DNREC has exercised this right by including short-term NO_X limits. Neither the 0.2 lb/mmbtu limit nor the 0.13 lb/mmbtu limit were established as NA-NSR limits, instead they represent the more stringent NO_X emission limitations allowed by the NO_X Cap provisions. The 0.2 lb/mmbtu limit is the same as the RACT limit described in Regulation 1112 Section 3.0, and the 0.13 lb/mmbtu limit is achieved by use of two control measures; induced flue gas recirculation and steam injection. The referenced boiler permits are not PSD permits because they were not developed as part of a major modification that increased emissions. They were most recently amended to reduce NO_X emissions via installation of the two aforementioned control measures; induced flue gas recirculation, and steam injection.
<u>G. The Draft Permit Provides Unlawful Alternate NOx Limits for Combined Cycle Units 84-1 and 84-2.</u> (pg 21) The draft Title V permit contains unlawful provisions that allow combined cycle units 84-1 and 84-2 to comply with alternate, higher NOx limits during periods of startup and shutdown. To begin with, the permit	Regulation 1142 section 2.3.1 identifies large refinery units that produce NO_X and specifies emission standards for those units; the Combined Cycle Units are not applicable units under this section. In lieu of complying with Section 2.3.1 a

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allows the units to comply with a limit of 390 ppmvd for up to 24 hours during startups and shutdowns of the combustion turbines or duct burners. *Id.* at Part 3(d)(4)(i)(D).[31] 390 ppmvd is over 108 times greater than even the highest limit that applies to these units on a 24-hour average basis (3.6 ppmvd) and over 21 times greater than the highest limit that applies on an hourly basis (18 ppmvd). *See id.* at Part 3(d)(4)(i)(C).[32] In addition, although the permit is unclear, it suggests that these units, as long as they comply with their 24-hour average NOx limits, are not required to comply with their hourly NOx limits when the units' SCR system is not operating during periods of startup, shutdown, malfunction, and planned maintenance. The permit provides: "Except as provided in [the conditions listing the 24-hour NOx limits of 3 ppmvd (when firing natural gas without duct firing) and 3.6 ppmvd (when firing natural gas with duct firing) and the condition allowing the units to comply with the alternate 390 ppmvd limit during certain startups and shutdowns], the CCUs shall not be operated unless the … SCR systems (when SCR is available) are operating properly." *Id.* at Part 3(d)(1)(ii)(I). The permit further provides that "[e]ach SCR system shall be operated at all times that it is available, excluding periods of startup, shutdown, or malfunction"—and that the "SCR system is considered available except during periods of planned maintenance or malfunction." *Id.* Relatedly, the permit provides that operation "in accordance with" the 24-hour NOx limits "shall constitute compliance with" the requirements from the condition discussed here in the above two sentences. Since the effect of the permit provisions discussed in this paragraph of the comments is unclear, DNREC must clarify that effect in the draft permit and the response to comments. Although the permit is also unclear about the source of the NOx limits that normally apply to the combined cycle units, the limits appear to be nonattainment NSR limits. To the extent the various provisions discussed above provide alternate limits during startup and shutdown (which the provisions discussed in the first paragraph clearly do), and to	facility may comply with Section 2.3.2 which establishes a facility-wide NO_X Cap, DCRC has opted to comply with this alternative which includes all NO_X producing units at the facility and further identifies that the NO_X Cap includes emissions during startup, shutdown, and malfunction. The facility complies with Regulation 1142 by complying with the NO_X Cap (permit conditions d.4.i.A, d4.iii..A, d.4.iv.C, and d.4.v.B). Regulation 1142 Section 2.3.3 reserves the Department's right to "establish [a] lower NO_X emission cap and more stringent NO_X emission limitations for any source subject to this regulation." DNREC has exercised this right by including the short-term 3/3.6 ppm, 15/18 ppm and 390 ppm emission limits. These limits therefore were not established pursuant to any NSR requirements and BACT and LAER analyses are not required. The DCR is not required to meet the short-term NO_X limits that are more stringent than the NO_X Cap provisions of Regulation 1142 during the start-up, shutdown, maintenance, and malfunction periods described in the permit.

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the extent they were not established through the required process for establishing NSR limits in the first place (including establishing that the alternate limits reflect LAER),33 they are unlawful, as explained in our May 22, 2020 comments at pages 12 and 16. In particular a NOx limit that is over 100 times greater than the units' normal limit does not reflect LAER and is thus clearly unlawful, regardless what process DNREC used to establish the alternate limits. And to the extent these provisions provide alternate limits that apply during malfunction and maintenance, they are also unlawful, regardless what process DNREC used for establishing the alternate limits. As discussed above, alternative BACT or LAER limits are not justifiable for periods of malfunctions or scheduled maintenance, and maintenance activities should be scheduled "during process shutdown." *See, e.g.,* Pirkey Order at 12. To remedy these problems, DNREC should remove the alternate 390 ppmvd NOx limit and make clear that no other alternate limits (or exemptions) apply to the combined cycle units during periods of maintenance, malfunction, startup, or shutdown.	
<u>H. The Draft Permit Allows DNREC to Approve Alternate Limits for the Combined Cycle Units Without Following the Required Process for Revising NSR Limits.</u> (pg 22) The permit also allows DCRC to petition DNREC on an ad hoc basis for a temporary alternative NOx limit that would apply instead of the combined cycle units' 24-hour average NOx limits of 3 ppmvd (when firing natural gas without duct firing) and 3.6 ppmvd (when firing natural gas with duct firing). *See* Title V Permit Condition 3 – Table 1, Part 3(d)(4)(i)(C), (G). DCRC is only required to submit the petition within three business days of the "facility's determination to operate under a temporary alternative limit," and the alternative limit can apply retroactively, for up to three business days before DNREC receives the petition. *Id.* at Part 3(d)(4)(i)(G)(1),(3). The permit specifies no limit on the duration of the alternative limit available	The 3/3.6 ppm limits are not NA-NSR limits; they were established after installation of the Selective Catalytic Reduction system (SCR) which is not considered a major modification under the PSD provisions. The Combined Cycle units have not undergone "a project that causes a significant emission increase, and a significant net emissions increase… (52.21(a)(2)(iv)(a)". The 15/18 ppm emission limits represent emissions prior to installation of the SCR, during outages of the SCR, the facility must meet the previously established limits.

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through this petition process, and the only numerical requirement is that the units must still comply with their hourly NOx limits of 15 and 18 ppmvd (depending on whether duct firing is occurring). *Id.* at Part 3(d)(4)(i)(G)(2). The permit also includes no public participation requirements for establishing the alternate limits. Although the permit is unclear about the source of the 24-hour NOx limits that normally apply to the combined cycle units, the limits appear to be nonattainment NSR limits. Assuming the limits are indeed NSR limits, these provisions allow DNREC to approve alternate limits without following the required process for revising the 3 and 3.6 ppmvd 24-hour limits that apply to these units. As discussed above and in more detail in our initial comments, to revise NSR limits, DNREC must follow the same process, including providing the required public participation and establishing that the alternate limits are LAER, for establishing NSR limits in the first place. For more detail on this argument, see our May 22, 2020 comments at pages 12 and 16. To remedy these problems, DNREC should remove the permit language allowing DCRC to petition for alternate limits for these units.	The petition process provision underwent public participation when the Regulation 1102 permits were made available for public participation for 30 days beginning Sunday, July 28, 2019. The petition provision limits emission requests to below 15/18 ppm. Since there is an upper bound to the alternative limit request and recognizing that the short-term limits were established as additional and more stringent requirements that those of the NO_X Cap provisions of Regulation 1124, the Division is not required to undergo additional public participation for the petition process.
[This section has been rearranged for clarity, for verbatim comments, please see original document] <u>I. The Draft Permit's Provisions Covering the Sulfur Recovery Area Contain Incomprehensible Requirements, Fail to Accurately Reflect Applicable NESHAP and NSPS Requirements, and Include Unlawful Startup and Shutdown Provisions.</u> (pg 23) The draft permit's requirements covering SO2 emissions from the sulfur recovery area's two Shell Claus Offgas Treatment ("SCOT") units are indecipherable. From the permit, it is impossible to determine what SO2 requirements apply to these units during differing periods of operation, and the permit language appears to conflict with the NESHAP and NSPS requirements for these units. The permit provides in relevant part:	The permit condition will be clarified by the following formatting changes: i. Emission Standard: a. The following emission standards shall apply; <u>conditions (i) and (ii) below apply except during startup or shutdown periods.:</u> *<u>[Reference: APC-90/0264(A7)]</u>* i. SO_2 emissions shall not exceed 0.025 percent by volume (250 ppm) in each SCOT stack at zero percent oxygen on a

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SO2 emissions shall not exceed 0.025 percent by volume (250 ppm) in each SCOT stack at zero percent oxygen on a dry basis on a twelve hour rolling average basis; or operate the thermal oxidizer or incinerator at a minimum hourly average temperature of 1,200 degrees Fahrenheit in the firebox and a minimum hourly average outlet oxygen (O2) concentration of 2 volume percent (dry basis), except during startup or shutdown conditions, 122 lb/hour calculated on a 24 hour rolling average basis and 535 TPY combined from both SCOT stacks. Title V Permit Condition 3 – Table 1, Part 2(j)(3)(i)(A). In particular, the above language seems to allow the SCOT units comply with one of two different limits at any point during operation—the SO2 limit of 0.025 percent by volume (250 ppm), or the combined 1,200 degrees Fahrenheit/2 volume percent oxygen requirement. But under NESHAP requirements applicable to these units, sources are allowed to comply with the alternate 1,200 degrees/2 volume percent oxygen requirement only during startup and shutdown. 40 C.F.R. § 63.1568(a)(1),(4); 40 C.F.R. Part 63, Subpart UUU, Table 29. And based on our review of the NSPS requirements, the 250 ppm limit applies at all times, leaving no option to use the alternate startup and shutdown requirement. 40 C.F.R. §§ 60.104(a)(2), 60.102a(f)(1). In addition to the above-described ambiguity, the permit language "except during startup or shutdown conditions, 122 lb/hour calculated on a 24 hour rolling average basis and 535 TPY combined from both SCOT stacks" is also ambiguous.	dry basis on a twelve-hour rolling average basis; *[Reference: §60.104(a)(i)]* ii. 122 lb/hour calculated on a 24-hour rolling average basis; and iii. 535 TPY combined from both SCOT stacks. The NSPS Subpart J does not address start-up and shutdown periods. Subpart A of Part 60 however, does state "Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard. (60.8(c))" The NESHAP, requires that a source elect one of three options to control emissions during startup and shutdown periods i.e., (1) meeting the 250 ppm NSPS limit or a TRS limit, (2) sending purge gases to a flare, or (3) sending purge gases to an oxidizer or incinerator. Since the NSPS limit does not apply at all times, and the NSPS is silent on startup/shutdown provisions except to say that excess emissions during SSM shall not be considered a violation of a performance test based limit, and because the NESHAP specifically requires that a source must elect one of three startup/shutdown provisions, the Division has interpreted that all three

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	startup/shutdown provisions of the NESHAP are available as control options. These three provisions are included in Part 2 – j.3.i.B.
To further complicate matters, the permit lists additional requirements that apply during periods of startup and shutdown—namely the startup and shutdown requirements from 40 C.F.R. § 63.1568(a)(4). Title V Permit Condition 3 – Table 1, Part 2(j)(3)(i)(B). Does "except during startup and shutdown" from Part 2(j)(3)(i)(A) provide an exception to the combined 1,200 degrees Fahrenheit/2 volume percent oxygen requirement, the 122 lb/hour limit, the 535 TPY limit, some combination of these requirements, or to something else? How does this language interact with or affect the startup and shutdown requirements from Part 2(j)(3)(i)(B)? As the permit is currently drafted, it is impossible to tell. To the extent the above-quoted permit language from Part 2(j)(3)(i)(A) purports to revise NSPS and NESHAP requirements, it is unlawful. DNREC cannot revise EPA's NSPS and NESHAP requirements for the SCOT units—only EPA can. *See* 42 U.S.C. §§ 7411(b)(1)(B), 7412(d)(1), 7412(l)(1). *See also* May 22, 2020 Comments at 12-13 (providing additional explanation and citation). Even if the permit is not intended to revise these federal requirements (perhaps if it is only intended to reflect NSR/PSD requirements), the permit does not meet Title V requirements because it is impossible to decipher what requirements apply to these units during different periods of operations or the source of these requirements (*i.e.*, NESHAP, NSPS, PSD/NSR, or SIP requirements). The purpose of Title V is to clarify a source's applicable requirements for the public, regulators, and the owner/operator—not obfuscate those requirements. *See Virginia v. Browner*, 80 F.3d 869, 873 (4th Cir. 1996) (intended purpose of Title V permits is to serve as "a source-specific bible for Clean Air Act compliance"). The NESHAP and NSPS requirements for the SCOT units are clearly applicable requirements. *See* 40 C.F.R. § 70.2 (defining "applicable	See changes above.

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requirement" to include any requirements under sections 111 and 112 of the Clean Air Act). The same holds true if any of the above-quoted permit language is supposed to reflect SIP or NSR/PSD requirements for these units. *See id.* (defining "applicable requirement" to include SIP and NSR/PSD requirements). The Title V permit must reflect the specifics of these applicable requirements as they apply to the Delaware City Refinery. *See* 42 U.S.C. § 7661c(a) (requiring Title V permits to include enforceable emission limitations and standards and "such other conditions as are necessary to assure compliance with applicable requirements of this chapter"); 40 C.F.R. § 70.6(a)(1) (requiring Title V permits to include "[e]missions limitations and standards, including those operational requirements and limitations that assure compliance with all applicable requirements at the time of permit issuance"). The permit must also "specify and reference the origin of and authority for each term or condition" and "identify any difference in form as compared to the applicable requirement upon which the term or condition is based." 40 C.F.R. § 70.6(a)(1)(i). To remedy the above-discussed problems, DNREC must revise the permit to make very clear both what SO2 requirements apply to these units under varying operating conditions and the "origin of and authority for" these requirements (*i.e.*, NESHAP, NSPS, PSD/NSR, or SIP). In revising the permit, DNREC must track and reflect all applicable requirements, including the NSPS and NESHAP requirements from EPA's regulations that apply to these units. And DNREC may not alter those NSPS and NESHAP requirements.	
The draft Title V permit's provisions covering the sulfur recovery area also contain unlawful alternate limits that apply during—and after—startup and shutdown of the two SCOT units. These provisions are especially problematic to the extent they purport to relax federal NSPS and NESHAP limits applicable to the SCOT units. In particular, the draft permit provides alternate limits that apply during four different "start up and shut	The following changes will be made: SCENARIO 1: Planned SCOT I and/or SCOT II Shut Down: When either SCOT unit shut down is planned, the stand by SCOT unit shall be brought to a state of readiness for operation before the operating SCOT

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down scenarios." Title V Permit Condition 3 – Table 1, Part 2(j)(3)(ii). Under the first scenario (planned shutdown of one of one or both of the SCOT units), the sulfur recovery area must comply with the startup/shutdown requirements from 40 C.F.R. § 63.1568(a)(4)34 within "2 hours after the operating SCOT unit is shutdown,"35 and up to 4.2 tons of SO2 can be emitted during these two hours.	unit is taken out of service. ~~Within 2 hours after the operating SCOT unit is shutdown,~~ All of the tailgases shall be treated to meet the shutdown provisions of Condition 3 Table 1 (j.3.i.B). ~~The maximum amount of SO_2 that shall be emitted during this 2-hour period shall not exceed 4.2 tons.~~
Under the third scenario (planned startup of "SRU I and II"), when SRU 1 or SRU II is being returned to service, the startup/shutdown requirements from § 63.1568(a)(4) must be complied with—and the "proper ratio" of H2S: SO2 in the acid gas feed must be attained through incineration of the tail gas—within 2 hours. But under the relevant NESHAP requirements, the SCOT units must comply with § 63.1568(a)(4)'s requirements "during periods of startup and shutdown"—not beginning "2 hours after the operating SCOT unit is shutdown" or two hours after startup begins. The draft permit's third scenario is also unlawful because it creates an exemption—a two-hour period during startup when no numeric limits or operating limits apply. *See* May 22, 2020 Comments at 11, 16 (providing explanation and citations regarding the unlawfulness of exemptions).	SCENARIO 3: Planned Start Up of SRU I and SRU II: When SRU-I or SRU-II is returned to service the tail gas from the unit being returned to service shall be incinerated until the proper ratio of H_2S:SO_2 in the acid feed gas is attained~~.~~; ~~T~~this ratio shall be established within 2 hours. ~~at which time~~ The tail gas shall meet the startup provisions of Condition 3 Table 1 (j.3.i.B).
Under the draft permit's second scenario (melting and burnout after planned shutdown of SRU I and SRU II), after SRU I or II has been shut down, residual sulfur melting and burnout are allowed to continue for up to seven days (with the resulting off gases incinerated) as long as the startup/shutdown requirements from § 63.1568(a)(4) are complied with.	SCENARIO 2: Melting and Burnout After Planned Shut Down of SRU I and SRU II: After SRU I or SRU II has been shut down, the off gases resulting from the residual sulfur melting and burnout shall be incinerated before exiting the stack. The melting and burnout procedure shall not exceed 7 days. The maximum amount of SO_2 resulting from this procedure shall not exceed the shutdown provisions of Condition 3 Table 1 (j.3.i.B).

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	The melting and burnout procedures are part of safe unit shutdown procedures and must meet the shutdown emission requirements described in the NESHAP.
And under the fourth scenario ("burnout of SCOT reactor" after shutdown of either SCOT unit), after the planned shutdown of either SCOT unit, the catalyst can be slowly burned free of sulfur for up to six days as long as the startup/shutdown requirements from § 63.1568(a)(4) are complied with. Under § 63.1568(a)(4), however, sources may only opt to meet alternative startup/shutdown compliance requirements "during periods of … shutdown." Sources are not allowed to opt for those alternative requirements after shutdown, much less for six or seven days after shutdown. Instead, after shutdown, the NESHAP provisions require the sulfur recovery area to meet the 250 ppm SO2 limit under § 63.1568(a)(1). To the extent the draft permit's four different startup/shutdown scenarios purport to alter NESHAP or NSPS requirements, they are clearly unlawful. As discussed above and in our previous comments, only EPA—not DNREC—can revise NSPS and NESHAP requirements for the SCOT units. *See* 42 U.S.C. §§ 7411(b)(1)(B), 7412(d)(1), 7412(l)(1). *See also* May 22, 2020 Comments at 12-13 (providing additional explanation and citation).	SCENARIO 4: Burnout of SCOT Reactor During Shutdown of Either SCOT Unit: After the planned shutdown of either SCOT I or II, in order to save the catalyst, it can be slowly burned free of sulfur. SO_2 emissions from this operation shall meet the shutdown provisions of Condition 3 Table 1 (j.3.i.B) and shall not exceed a 6-day period. This burnout procedure is part of the proper unit shutdown procedures and must meet the shutdown emission requirements described in the NESHAP.
The draft permit is unclear whether the sulfur recovery area's 122 lb/hr and 535 tons/year limits still apply during these four different startup/shutdown scenarios. To the extent these four scenarios purport to revise these hourly and annual limits, which are presumably PSD/NSR limits, the scenario provisions are unlawful if DNREC did not establish the exemptions through the required process, including the required public participation, for establishing PSD/NSR limits in the first place. See our May 22, 2020 comments at pages 12 and 16 for more explanation on this argument.	The annual limit applies at all times and includes emissions from startup and shutdown periods. The 122 lb/hr limit and the 535 TPY limit reflect emission reductions due to the Sulfur Pit Vapor Rerouting Project conducted in 2008. This permit (90/0264-C/O (A7)(NSPS)) is not a PSD permit and was issued on June 18, 2008, it was made available for public participation on December 9, 2007 and includes the startup/shutdown exemption for the 122 lb/hr limit.

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To remedy these various problems, DNREC should remove the provisions addressing these four scenarios—or make clear that they do not alter the limits that otherwise apply to the sulfur recovery area, especially applicable NESHAP and NSPS requirements. DNREC must also revise the permit to clarify how these four scenarios affect the sulfur recovery units' SO2 requirements under various operating conditions. In particular, for the first scenario, DNREC must clarify what "2 hours after the operating SCOT unit is shutdown" means, *i.e.*, whether it means that compliance with the alternative requirements must occur within two hours after shutdown is first initiated or two hours after shutdown is complete. In addition to the unlawful startup and shutdown provisions applicable during these four operating scenarios, the draft permit's above-quoted language "except during startup or shutdown conditions" from Part 2(j)(3)(i)(A) is also unlawful to the extent that it purports to create periods during startup and shutdown where any of the specific requirements from that condition (*i.e.*, the 250 ppm, combined 1,200 degrees Fahrenheit/2 volume percent oxygen, 122 lb/hr, and 535 tons/year requirements) do not apply. If that language indeed creates such periods, it is unlawful because it creates an exemption when there are not continuous emissions reductions required, it apparently revises limits through a process that is contrary to the Clean Air Act's process for establishing and revising these limits, it attempts to remove the ability of the public and EPA to enforce (including through penalties) the limits applicable to these units during normal operations, it violates the requirement that Title V permits must assure compliance with all applicable requirements and is contrary to the statutory purpose of strengthening enforcement. The permit language is especially problematic to the extent it purports to alter NSPS or NESHAP requirements. To remedy these problems, DNREC should remove the phrase "except during startup or shutdown conditions" from Part 2(j)(3)(i)(A). If DNREC chooses to retain that phrase (which would apparently be unlawful), DNREC must, at the very least, clarify the effect of that phrase on DCRC's compliance obligations and how that phrase affects the limits otherwise applicable to the sulfur recovery area.	See changes above.

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III. The Draft Permit Fails To Clearly "Specify And Reference The Origin Of And Authority For Each Term Or Condition," As Required By 40 C.F.R. § 70.6(A)(1)(I). (pg. 26) 40 C.F.R. § 70.6(a)(1)(i) provides that each Title V permit "shall specify and reference the origin of and authority for each term or condition, and identify any difference in form as compared to the applicable requirement upon which the term or condition is based." The draft permit fails to clearly do this. In particular, for many of the limits and other requirements listed in the draft permit, it is impossible to tell for certain whether they are requirements from preconstruction (*i.e.*, NSR/PSD) permits or from EPA's NSPS and NESHAP regulations. For example, as discussed in our May 2020 comments (at pages 10-11), although the draft Title V permit seems to indicate that the overwhelming majority of the limits listed for the refinery's FCU and FCCU were established through preconstruction permits, some of these same limits are also NESHAP and NSPS limits. At the same time, as discussed above and in the May 2020 comments, the draft Title V permit adds director's discretion provisions, exemptions, alternate limits, and other loopholes that do not exist in EPA's NESHAP and NSPS regulations—thereby seemingly unlawfully altering those EPA-created requirements. This same problem exists for other units, such as the sulfur recovery area and crude unit heaters, as discussed above. In these circumstances, when the permit would seem to unlawfully alter these NESHAP and NSPS requirements, DNREC must be extra vigilant to ensure that it complies with § 70.6(a)(1)(i)'s requirement to specify and reference the origin of and authority for each term and condition. As currently drafted, the permit is unclear about the refinery's compliance obligations and fails to ensure compliance with applicable requirements, which also violates the Clean Air Act, 42 U.S.C. § 7661(c)(a), and 40 C.F.R. §§ 70.1(b), 70.6(a)(1), and 70.7(a)(1)(iv).	References are included with the permit conditions as a mixture of federal regulation citations, state regulation citations, and Regulation 1102 permit citations to indicate the origin of each permit term. Once included in the title V permit, the conditions originating from the Regulation 1102 permits become enforceable under § 304 of the CAA. Commenters seem to believe that absence of a reference to a NESHAP, NSPS limit etc. indicates that the reference is missing rather than that the NESHAP, NSPS etc. condition does not apply.

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Further, if DNREC is indeed attempting to alter these EPA-created requirements, then DNREC has failed to comply with § 70.6(a)(1)(i)'s directive that the Title V permit "identify any difference in form as compared to" the NESHAP and NSPS requirements—since the draft permit identifies no such differences. To remedy these problems, DNREC must revise the draft permit to fully comply with § 70.6(a)(1)(i)'s directives, being careful to accurately attribute requirements to their proper source, including preconstruction permits, NESHAP, and NSPS. DNREC must ensure that it does this for every unit at the refinery (not just the specific units identified above)—especially any units that have NESHAP and NSPS obligations.	
IV. The Draft Permit Is Deficient Because It Does Not Include Necessary Terms And Conditions For Fenceline Monitoring And Otherwise Fails To Assure Compliance With NESHAP And NSPS Requirements. (pg. 27) DNREC must fully incorporate all of the current National Emission Standards for Hazardous Air Pollutants (NESHAP) for refineries, including fenceline monitoring provisions, as terms and conditions in the permit. While the permit appropriately incorporates the 40 C.F.R. Part 63 Subpart CC fenceline monitoring requirements as terms and conditions, the compliance certification requirement does not include all of these requirements. In particular, pages 314-15 of the draft permit show that the corrective action requirements are not included in the compliance certification term (column three). Thus, the draft permit fails to ensure compliance with these applicable fenceline monitoring requirements, in violation of 42 U.S.C. §§ 7661c(a) and 7661c(c), as well as 40 C.F.R. §§ 70.1(b), 70.6(a)(1), 70.6(c)(1), and 70.7(a)(1)(iv).	The corrective action requirements of Part 63.658(g) and (h) are contained in Monitoring Conditions oc.1.iii.E and include the requirement to "submit a corrective action plan to the Administrator and the Department within 60 days after receiving the analytical results indicating that the delta C value for the 14-day sampling period following the completion of the initial corrective action is greater than 9 micrograms/m3, or if not initial corrective actions were identified, no later than 60 days following the completion of the corrective action analysis required in Condition 3-Table 1.oc.1.ii.F.1." The subsequent condition includes recordkeeping requirements "…required by 40 CFR Part 63.658." The Commenters reference several regulatory provisions none of which preclude a permit's ability to incorporate by reference any regulatory conditions.

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Relatedly, in violation of these same requirements and 40 C.F.R. § 70.6(a)(3)(A), the draft permit fails to ensure compliance with other NESHAP requirements, as well as NSPS requirements, for individual units at the refinery. And the draft permit impermissibly fails to provide for practical enforceability of the NESHAP and NSPS. More specifically, for at least several different units at the refinery, the draft permit fails to specifically list the applicable standards, operating limits, and monitoring, testing, and reporting requirements from EPA' NESHAP and NSPS regulations.	References are included with the permit conditions as a mixture of federal regulation citations, state regulation citations, and Regulation 1102 permit citations to indicate the origin of each permit term. The Commenters have not identified applicable provisions of Part 63 Subpart UUU that have been omitted from the permit.
For example, with regard to the FCCU's NESHAP obligations, the permit only states that DCRC "shall comply with all the applicable requirements of 40 CFR Part 63, subpart UUU." Title V Permit Condition 3 – Table 1, Part 2(e)(9)(i)(A). The only specific Subpart UUU-related obligations listed in the permit are HCN-related obligations the requirements to monitor CO by CEMS, submit semi-annual compliance reports, and to operate in keeping with an operation, maintenance, and monitoring plan. *Id.* at Part 2(e)(9). Yet Subpart UUU contains many additional requirements applicable to FCCUs, including emission standards, operating limits, and monitoring, testing, and reporting requirements. *See, e.g.*, 40 C.F.R. §§ 63.1564-65; 40 C.F.R. Part 63, Subpart UUU, Tables 1-14.	
Even worse, the draft permit lists no specific NSPS requirements for the FCCU—even though the permit shield section of the permit lists NSPS Subpart VV as being applicable to the FCCU (Title V Permit Condition 6), and even though NSPS Subparts J and Ja are applicable to FCCUs that have been constructed or modified after certain dates. Although the permit lists certain requirements for the FCCU—requirements that are attributed to preconstruction permits—that overlap with NESHAP and NSPS requirements applicable to FCCUs, it is completely unclear whether these are actually NESHAP and NSPS requirements. And, importantly, these requirements listed in the draft Title V permit appear to unlawfully alter the	Part 60, Subpart VV contains standards for 'Equipment leaks of VOCs in synthetic organic chemicals manufacturing industry' and sets general standards for ancillary equipment to detect leaks. Many of the conditions are housed in the LDAR section of the permit. Part 60 Subpart J is applicable to the Fluid Catalytic Cracking Unit. The Commenter's have not identified an applicable regulatory condition which has been

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EPA-created NESHAP and NSPS requirements applicable to FCCUs, as discussed above and in our May 2020 comments.	omitted from the permit. The FCCU is not subject to Ja because it has not commenced construction, modification or reconstruction after May 14, 2007, or elected to comply with the provisions of Ja in lieu of complying with the provisions in subpart J.
These same and similar problems exist in the draft permit for additional units at the refinery—including the FCU, sulfur recovery area, and boilers and heaters. For example, even though the draft permit's permit-shield provision lists NESHAP Subpart CC as being applicable to the FCU (Title V Permit Condition 6), the draft permit identifies no specific Subpart CC requirements at all for this unit. *See id.* at Condition 3 – Table 1, Part 2(da). And the draft permit lists no NSPS Subpart Ja requirements for the FCU, even though that subpart contains requirements for FCUs that were constructed or modified after a certain date. 40 C.F.R. §§ 60.100a, 60.102a, 60.106a. The only NSPS-related requirements listed for the FCU are certification and quality assurance requirements for certain CEMS. As with the FCCU, although the permit lists certain requirements for the FCU—requirements that are attributed to preconstruction permits—that overlap with NSPS requirements applicable to FCUs, it is completely unclear whether these are actually NSPS requirements. And these requirements listed in the draft Title V permit appear to unlawfully alter the EPA-created NSPS requirements applicable to FCUs, as discussed above and in our May 2020 comments.	Part 63 Subpart CC is applicable to specific equipment that emit HAPs at a petroleum refining process related to process vents, storage vessels, wastewater treatment operations, equipment leaks, gasoline loading racks, marine vessel loading operations, bulk gasoline terminal operations, heat exchange systems, and delayed coking unit operations. This subpart explicitly excludes stormwater sewers, spills, ancillary equipment in use for less than 300 hours, catalytic cracking unit and sulfur plant vents, and fuel gas systems. Part CC is included in the permit shield provision as it relates to condition da.6.i.B which states in part: The leak detection and repair requirements to control fugitive VOC emissions from the FCU shall be in accordance with the requirements in 40 CFR 60, Subpart GGG for existing components in light liquid and gaseous service and in accordance with 40 CFR Part 60 subpart CC for new components in light liquid and gaseous service. This condition contains a typo and should read "…and in accordance with 40 CFR Part 63 subpart CC for new components in light liquid and gaseous service." This error will be corrected.

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	The FCU is not subject to Ja because it has not commenced construction, modification or reconstruction after May 14, 2007, or elected to comply with the provisions of Ja in lieu of complying with the provisions in subpart J.
The same is true for the refinery's sulfur recovery area's NESHAP and NSPS obligations, as discussed above. For that area, the draft permit only lists certain NESHAP startup and shutdown, semi-annual reporting, and CEMS-related requirements (Title V Permit Condition 3 – Table 1, Part 2(j))—even though the draft permit's permit-shield provision lists NESHAP Subpart UUU and NSPS Subpart J as being applicable to the sulfur recovery area (Title V Permit Condition 6), and there are NESHAP Subpart UUU and NSPS Subparts J and Ja requirements applicable to sulfur recovery units. *See* 40 C.F.R. §§ 60.104(a)(2), 60.102a, 63.1568; 40 C.F.R. Part 63, Subpart UUU, Tables 29-35.	Part 63 Subpart UUU is applicable to the Sulfur Recovery Plant. It includes SO_2 limits heavily based on the NSPS requirements. The clarified text for the Sulfur Recovery Area (SRA) in a previous response includes the relevant citations. Part 60 Subpart J is applicable to the Sulfur Recovery Plant and includes standards for sulfur oxides, associate monitoring, testing, reporting, and record-keeping conditions. The clarified text for the SRA in a previous response includes the relevant citations. The Sulfur Recovery Area is not subject to Part 60 Subpart Ja because it has not undergone a modification that resulted "in an increase in the emission rate to the atmosphere of any pollutant to which a standard applies" (60.14 (a)) after May 14, 2007.
In addition, the draft permit appears to list no NSPS or NESHAP requirements for boilers 80-2, 80-3, and 80-4 (Title V Permit Condition 3 – Table 1, Part 3(a))—even though there are NESHAP and NSPS requirements for boilers. *See* 40 C.F.R. Part 63, Subpart DDDDD; 40 C.F.R. Part 60, Subparts J, Ja. Likewise, based on our review, the draft	Subpart J of the Part 60 NSPS is applicable to the boilers because they are fuel gas combustion devices. The only applicable requirement for fuel gas combustion devices is that the fuel have an H_2S content less than 0.1 gr/scf. This requirement found

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permit lists no NESHAP requirements for the refinery's various heaters, despite the fact that 40 C.F.R. Part 63, Subpart DDDDD contains NESHAP requirements for industrial process heaters. Per 40 C.F.R. § 63.7485, a unit is subject to Subpart DDDDD if it is an "industrial …boiler or process heater as defined in § 63.7575 that is located at, or is part of, a major source of HAP, except as specified in § 63.7491." The refinery's heaters and boilers appear to meet this test. They are part of a major source of HAP (the DCRC refinery) and do not appear to be subject to any of the exceptions from 40 C.F.R. § 63.7491. And they are "industrial boilers" and/or "process heaters" as defined in 40 C.F.R. § 63.7575.[36] If for some reason these heaters and boilers are not subject to Subpart DDDDD or to NSPS requirements, DNREC must explain why that is the case. It is especially important to specify the particular NESHAP requirements applicable to these units so that the public and regulators will know whether they are subject to numeric limits applicable to certain units under Subpart DDDDD, or the tune-up requirements applicable to other units—and, if they are subject to tune-up requirements, the required frequency of the tuneups. Subpart DDDDD does not appear to require compliance with numeric limits for those heaters and boilers that only burn natural gas or refinery gas. *See* 40 C.F.R. § 63.7500(a),(e), Table 2 to Subpart DDDDD (not listing any numeric limits for the subcategory of units designed to burn "gas 1"), 40 C.F.R. § 63.7575 (defining "unit designed to burn gas 1 subcategory" as including heaters that burn only natural gas or refinery gas). But even those units that do not have to meet numeric limits are still required to conduct tune-ups—on an annual basis, every other year, or every five years, depending on a unit's heat input capacity and whether it has a continuous oxygen trim system. *See* 40 C.F.R. § 63.7540(a)(10)-(12), Table 3 to Subpart DDDDD	in §60.104(a)(1) is included in the permit at Part 3-Condition a.2.i.A. The boilers are subject to Subpart DDDDD of Part 63 and are required to conduct annual tune-ups. DCRC has been in compliance with this requirement. The permit will be updated to include the tune-up requirement.
The NESHAP and NSPS requirements applicable to the refinery's FCCU, FCU, sulfur recovery area, and boilers and heaters are clearly	References are included with the permit conditions as a mixture of federal regulation citations, state

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applicable requirements with which the Title V permit must ensure compliance. *See* 40 C.F.R. § 70.2 (defining "applicable requirement" to include "[a]ny standard or other requirement under" §§ 111 and 112 "of the Act"). EPA has taken the position that NESHAP requirements may be incorporated into Title V permits by reference, but that incorporation must be done in a way clearly identifies a source's NESHAP obligations. *In the Matter of Tesoro Refining and Marketing Co.,* Order on Petition No. IX-2004-6 at 8-9 (March 15, 2005) ("Tesoro Order"), https://www.epa.gov/sites/production/files/2015-08/documents/tesoro_decision2004.pdf. In the Tesoro Order, EPA explained: At a minimum, *a permit must explicitly state all emission limitations and operational requirements for all applicable emission units at the facility*. Permitting authorities may reference the details of those limits and other requirements rather than reprinting them in permits provided that (i) *applicability issues and compliance obligations are clear*, and (ii) the permit contains any additional terms and conditions necessary to assure compliance with all applicable requirements. In all cases, *references should be detailed enough that the manner in which the referenced material applies to the facility is clear* and is not reasonably subject to misinterpretation. *Id.* at 8 (emphasis added, citations omitted). *See also In the Matter of Citgo Refining and Chemicals, West Plant, Corpus Christi,* Order on Petition No. VI-2007-01 at 11 (May 28, 2009), https://19january2017snapshot.epa.gov/sites/production/files/2015-08/documents/citgo_corpuschristi_west_response2007.pdf (objecting to Title V permit that failed to explicitly identify applicable emission limits). In objecting to the Title V permit for the Tesoro refinery, EPA found that the permit failed two tests—whether it was "specific enough to define how the applicable requirement applies to the facility, i.e., is its application unambiguous," and whether it "provide[d] for practical enforceability of the NESHAP."[37] Tesoro Order at 9.	regulation citations, and Regulation 1102 permit citations to indicate the origin of each permit term. The quoted text of the Tesoro Order was in reference to incorporation by reference of federal regulations and questioned whether Tesoro's permits had sufficiently low level citations to facilitate an incorporation by reference. This does not address citations of conditions wholly contained within the permit.

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The draft permit here also fails both of these tests. It does not explicitly and unambiguously identify the NESHAP and NSPS limits and monitoring, testing, recordkeeping, and reporting requirements applicable to multiple units. And it does not provide for practical enforceability of NESHAP and NSPS requirements. Instead, applicability issues and compliance obligations for the refinery are far from clear—especially given that many of the listed limits and other requirements *conflict with* NESHAP and NSPS requirements. Thus, the draft permit fails to ensure compliance with these applicable requirements. To correct these problems, DNREC must revise the draft permit to clearly identify all of the NESHAP and NSPS requirements—including (but not limited to), emission standards, operating limits, and monitoring, testing, recordkeeping, and reporting requirements—applicable to all of the refinery's various units, including (but not limited to) the FCCU, FCU, boilers, heaters, and sulfur recovery area.	
V. The Draft Permit Includes An Unlawful Permit Shield. (pg 30) The draft permit purports to include a permit shield in Condition 6. That condition states: "Compliance with the terms and conditions of this permit shall be deemed compliance with the applicable requirements as provided in Condition 6 – Table 1 as of the effective date of this permit." Condition 6 is contrary to the Title V requirements for permit shields. Under 42 U.S.C. § 7661c(f)(1), a Title V permit "may … provide that compliance with the permit shall be deemed compliance with other applicable provisions of [the Clean Air Act] that relate to the permittee *if []the permit includes the applicable requirements of such provisions*."38 (Emphasis added). EPA's Part 70 regulations similarly provide that a Title V permit may state that "compliance with the conditions of the permit shall be deemed compliance with any applicable requirements … *provided that* … [*s]uch applicable requirements are included and are specifically identified in the permit*." 40 C.F.R. § 70.6(f)(i) (emphasis added).	The specific federal and state regulations are identified in the body of the permit. The Commenters have identified similarities between permit conditions and federal regulations and have surmised that these federal references have been omitted rather than that the federal regulations were used as guidelines in establishing emission limits for units that are not otherwise applicable. Following submission of a permit application, AQ prepares a Technical Memorandum which includes a Regulatory Review of state and federal regulation applicability that identifies those regulations that are applicable and the manner in which the requirements are incorporated into the permit, as well as identifies those regulations that appear relevant but are not

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Contrary to these permit-shield directives from the Act and Part 70, the draft permit purports to provide a permit shield for certain applicable requirements without specifically identifying those requirements. Instead of specifically identifying applicable requirements, Table 1 of the draft permit's Condition 6 lists requirements only in a very general manner— for federal requirements, by only 40 C.F.R. part and subpart, and for requirements from the state administrative code, usually by only by code section. For example, for the FCU (Unit 22), Table 1 only lists one NESHAP requirement in a very general manner—"40 CFR Part 63, Subpart CC"—without providing any details regarding the specific requirements from Subpart CC that are applicable to the FCU. And for the FCCU (Unit 23), Table 1 only lists two NESHAP requirements—"40 CFR Part 63, Subpart CC" and "40 CFR Part 63, Subpart UUU"—without providing any details regarding the specific requirements from Subparts CC and UUU that are applicable to the FCCU. Simply listing these Part 63 subparts does not constitute "specifically identif[ying]" the applicable requirements from those subparts, as required by 40 C.F.R. §70.6(f)(i). Nor does the permit elsewhere specifically and clearly identify the NESHAP requirements for these units. This same problem exists for at least NSPS requirements for the FCU and FCCU—and also exists for many additional requirements for many additional units listed in Condition 6's Table 1. Although, as discussed above, some of the requirements in the draft Title V permit attributed to preconstruction permits overlap with NESHAP and NSPS requirements, the permit's vague identification of requirements that may or may not be NESHAP and NSPS requirements does not constitute specifically identifying these requirements. The draft permit's purported shield is especially concerning given that some of the requirements identified in the draft permit conflict with NESHAP and NSPS requirements. The permit shield is especially unlawful to the extent the draft Title V permit impermissibly alters EPA's NESHAP and NSPS requirements (which only EPA—not DNREC—can do), while at the same time attempting to give DCRC a permit shield for those same altered federal requirements.	applicable and the basis for that determination. The unit-specific and condition-specific concerns that the Commenters have identified are addressed in this Technical Response Memo.

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To remedy these problems, DNREC should remove the permit-shield condition from the Title V permit.	
VI. The Draft Permit Fails to Include Applicable Requirements From Recent Preconstruction Permits. (pg. 31) In DNREC's review memorandum for the draft Title V permit, the Department identifies nine different preconstruction permits that have been issued for the refinery in the past two years but that DNREC is not now incorporating into the Title V permit. Review Memo. at 4-5. Instead, these preconstruction permits "will appear in following Significant Permit Modifications." *Id.* At 5. The requirements from these nine preconstruction permits are applicable requirements. *See* 40 C.F.R. § 70.2 (defining "applicable requirement" to include "[a]ny term or condition of any preconstruction permits issued pursuant to regulations approved or promulgated through rulemaking under title I, including parts C or D, of the Act"). DNREC's failure to incorporate the requirements from these nine permits into the Title V permit now, with this renewal, violates the mandate that Title V permits ensure compliance with all applicable requirements. 42 U.S.C. § 7661c(a); 40 C.F.R. §§ 70.1(b), 70.6(a)(1), 70.6(c)(1), 70.7(a)(1)(iv). In fact, 40 C.F.R. § 70.6(a)(1) specifically provides that Title V permits must "assure compliance with all applicable requirements *at the time of permit issuance*." (Emphasis added). The requirements from these nine preconstruction permits are applicable requirements now—and thus presumably will also be applicable requirements "at the time of permit issuance." Contrary to Title V's purpose of promoting and ensuring compliance, preconstruction permitting requirements not incorporated into the Title V permit are not enforceable through the Title V permit. Further, deferring the incorporation of these permits is extremely inefficient and makes it less likely that the public will be involved in the process for incorporating those permit requirements into the Title V permit, since the public will have to constantly be on the lookout for public notice that the	This is incorrect. Firstly, the Commenters are conflating preconstruction permits for purposes of PSD and NA-NSR with construction permits for Regulation 1102 permits. The DCRC does not have any active preconstruction permits. The construction permits identified in the Review Memo are active and listed in Condition 1(b) of the Title V permit. The conditions are incorporated into the Title V permit after construction is complete and operation authorized. To include conditions for units or control devices that don't yet exist would be inappropriate and confusing, especially considering the duration of the construction period and the possibility that construction projects may be discontinued before completion. The permits are public noticed as construction permits, then again during the Significant Permit Modification when they are incorporated into the Title V permit, and are available for comment during subsequent permit renewals. The process for construction permits to be incorporated into the Title V permit is outlined in Regulation 1130 Section 5.1.1.4 which says in part "A source that is required to … have a permit under a preconstruction review program under Title 1 of the Act, shall file a complete application to obtain an

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Title V permit is being modified to incorporate these preconstruction permits. It makes no sense that these preconstruction requirements would not be incorporated into the Title V permit now, since all of the preconstruction permits were issued months ago. To remedy these problems, DNREC must incorporate the requirements from these preconstruction permits into the Title V permit with this permit renewal.	operating permit or permit amendment or modification within 12 months of commencing operation…" Similarly, 40 C.F.R §70.7.7(d)(1) and (e) identifies the procedure to incorporate the conditions of preconstruction review permits into a part 70 permit via an Administrative Permit Amendment or a Permit Modification respectively.
<u>VII. The Draft Permit Fails To Include DCRC's Flare Management Plan.</u> (pg. 32) The draft permit indicates that DCRC operates two flares—the north and south flares. Title V Permit Condition 3 – Table 1, Part 2(n). To ensure compliance with all applicable NSPS and NESHAP requirements for the flares, the draft permit must—but currently does not— incorporate the flare management plan required under EPA's NSPS and NESHAP regulations. 40 C.F.R. § 60.103a, at subsections (a)-(b), requires owners and operators of flares to develop, implement, submit, and comply with a flare management plan that includes several detailed categories of information, including: a listing of units and systems connected to the flares; descriptions of the flares; an assessment of whether discharges to the flares can be minimized; and procedures to minimize or eliminate discharges to the flares during planned startup and shutdown of the units and systems connected to the flares. The compliance deadline for this requirement was November 11, 2015—though, after that, plans are to be updated to account for changes in operation of flares. 40 C.F.R. § 60.103a(b)(1)-(2). Similarly, 40 C.F.R. § 63.670(o) also requires owners and operators of any flares that have the potential to operate above their smokeless capacity under any circumstance to develop, implement, submit, and comply with a flare management plan to minimize flaring during periods of	The facility has developed, implemented, submitted (to the Administrator and to the Division), and complied with a flare management plan (FMP). The referenced federal conditions do not require that the FMP be housed in the permit. In fact 60.103a(b)(2) states that "*The Owner or operator must comply with the plan as submitted by the date specified in paragraph (b)(1) of this section. The plan should be updated periodically to account for changes in the operation of the flare, such as new connections to the flare or the installation of a flare gas recovery system, but the plan need by re-submitted to the Administrator only if the owner or operator add as an alternative baseline flow rate, revises an existing baseline as described in paragraph (A)(4) of this section, installs a flare gas recovery system or is required to change flare designation and monitoring methods as described in section 60.107a(g). The owner or operator must comply with the updated plan as submitted*." If the FMP were incorporated into the permit by attachment, updates to the FMP including those which would not otherwise have to

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startup, shutdown, or emergency releases. The compliance deadline for this requirement was January 30, 2019. *Id.* § 63.670(o)(2). These NESHAP and NSPS requirements regarding flare operation and flare management plans are clearly applicable requirements. *See id.* § 70.2 (defining "applicable requirement" to include any requirements under sections 111 and 112 of the Clean Air Act). To ensure compliance with these applicable requirements (including, but not limited to, the requirements from § 63.670 regarding visible emissions, combustion zone net heating value, flare tip velocity, and pilot flare presence), DNREC must attach and incorporate the most current version of DCRC's NSPS and NESHAP flare management plan(s) into the Title V permit, to allow the public and regulators to access the specifics of these applicable requirements as they apply to DCRC. *See* 42 U.S.C. § 7661c(a) (requiring Title V permits to include enforceable emission limitations and standards and "such other conditions as are necessary to assure compliance with applicable requirements of this chapter"). Although the draft permit lists the NSPS and NESHAP requirements to develop a flare management plan as applicable requirements (Title V Permit Condition 3 – Table 1, Parts 2(n)(1)(i)(H), 2(n)(3)), this is not enough to ensure compliance with the NSPS and NESHAP requirements for the flares—especially given the flares' history of noncompliance, discussed below. Instead, DNREC must attach the most current version of DCRC's flare management plan(s) to the Title V permit and incorporate the plan(s) into the permit.	be submitted to the Administrator would require modification through the permitting process which is clearly not the intent of the FMP provisions, nor that operational plans of this complexity should be subject to public participation. The permit contains the requirement to "develop and implement a written Flare Management Plan in accordance with the provisions found in 40 CFR 60.103a(a) by no later than November 11, 2015" in permit condition Part 2 Condition n.1.ii.H, and to maintain " a copy of the flare management plant" (with references to 40 C.F.R 60.108a(c)(1) in permit condition n.1.iv.J. The permit additionally contains an FMP section (n.3) which contains, or contains by reference, the provisions of 63.670(o)(1) including the requirement to develop implement, and comply with the submitted flare management plan. Failure to comply with the FMP submitted to the Department and the Administrator would violate several permit conditions, and as such, is enforceable.
<u>VIII. The Draft Permit Fails To Include Terms And Conditions To Assure Compliance With The Accidental Release Prevention, Risk Management Program Regulations Under 40 C.F.R. Part 68.</u> (pg. 33) The draft permit is incomplete and unlawful because it omits terms needed to determine and assure compliance with the Accidental Release Prevention Requirements, also known as the EPA Risk Management Program, 40 C.F.R. Part 68— as evidenced by the draft permit itself and	Part 68 describes the "requirements for owners or operators of stationary sources concerning the prevention of accidental releases..." The Division of Air Quality does not provide permits for accidental releases.

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the portion of DCRC's Risk Management Plan that is available online. 40 C.F.R. Part 68 is an "applicable requirement" for DCRC, with which the permit must assure compliance. 42 U.S.C. §7661c(a); 40 C.F.R. § 70.6(a), (c); 40 C.F.R. § 68.215. However, the draft permit does not include specific terms and conditions needed to assure compliance with 40 C.F.R. Part 68. The draft permit includes only the following: *In the event this stationary source*, as defined in the State of Delaware 7 DE Admin. Code 1201 "Accidental Release Prevention Regulation" Section 4.0, is *subject to or becomes subject to* Section 5.0 of 7 DE Admin. Code 1201 (as amended March 11, 2006), the owner or operator shall submit a risk management plan (RMP) to the Environmental Protection Agency's RMP Reporting Center by the date specified in Section 5.10 and required revisions as specified in Section 5.190. A certification statement shall also be submitted as mandated by Section 5.185. Draft permit at 18 (emphasis added.)	The state air regulations are housed in 7 DE Admin. Code 1100; the 1200 block or regulations pertain to "Emergency and Prevention Response", as such the air permits do not evaluate or directly incorporate conditions found in 7 DE Admin. Code 1200. Instead, these regulations are handled by the Accidental Release Prevention Program of the Division of Waste and Hazardous Substances. Facilities regulated by the Accidental Release Prevention Program are required to submit and periodically updated their Risk Management Registration Form and are subject to annual fees determined by the program. https://dnrec.alpha.delaware.gov/waste-hazardous/emergency-response/accidental-release-prevention/

That provision is deficient because it does not plainly state that the federal and state RMP regulations apply to processes at DCRC. It leaves that open by conditioning compliance, as a hypothetical: stating "in the event" that DCRC is or might become subject to the regulations, and without confirming that indeed DCRC *is* subject to—and therefore must meet—the regulatory requirements. Without a clear statement that these regulations apply and are enforceable through this permit, the draft permit does not meet the requirement to include "[a] statement listing [Part 68] as an applicable requirement," pursuant to 40 C.F.R. § 68.215(a)(1) as required by 40 C.F.R. § 70.6, 7 Del. Admin. Code 1130, § 122.142(b)(2)(B), and 42 U.S.C. § 7661c(a). Further, the draft permit also fails to include the following components as required by these provisions and 40 C.F.R. § 68.215(a)(2): "Conditions that require the source owner or operator to submit: (i) A compliance schedule for meeting the requirements of this part by the dates provided in §§ 68.10(a) through (f) and 68.96(a) and (b)(2)(i), or; (ii) As part of the compliance certification submitted under 40 CFR 70.6(c)(5), a certification statement that the source is in compliance with all requirements of this part, including the registration and submission of the RMP." From our review, the draft permit does not satisfy this requirement either. The general language in the draft permit on compliance certification does not address this. In addition, the regulations require the following: (e) The air permitting authority or the agency designated by delegation or agreement under paragraph (d) of this section shall, at a minimum: (1) Verify that the source owner or operator has registered and submitted an RMP or a revised plan when required by this part; (2) Verify that the source owner or operator has submitted a source certification or in its absence has submitted a compliance schedule consistent with paragraph (a)(2) of this section; (3) For some or all of the sources subject to this section, use one or more mechanisms such as, but not limited to, a completeness check, source audits, record reviews, or facility inspections to ensure that permitted sources are in compliance with the	Part 68.215(d) allows the State to delegate the authority to regulate Part 68 to a state agency other than the air permitting authority; the Accidental Release Prevention (ARP) Program is the delegated agency. The Division disagrees with the Commenters assertion that provisional statements are insufficient identify Part 68 as an applicable requirement. EPA has established that RMP program was different from other "applicable requirements" and "was not intended to be primarily implemented or enforced through title V." *In the Matter of Newark Bay Cogeneration Partnership LP,* Order on Petition NO. II-2019-4. EPA has explained that generic terms in title V permits would assure compliance with RMP requirements and "the minimum with respect to section 112(r) is a "check box" for the source to note whether it is subject to section 112(r), and either certification that the source is in compliance with part 68 or has a plan for achieving compliance. Any other requirements are up to the air permitting authority." It further references the North River Water Pollution Control Plant Petition Order which used a conditional statement to identify RMP applicability similar to what is included in the draft permit. Condition 2.p of the permit is found in every Title V permit and is written in such a way to ensure that the permit covers any newly subject source, or any source whose applicability fluctuates. While DCRC's RMP applicability status is unlikely to fluctuate, EPA

requirements of this part; and (4) Initiate enforcement action based on paragraphs (e)(1) and (e)(2) of this section as appropriate. 40 C.F.R. § 68.215(e). However, as the draft permit shows, there is no evidence that DNREC has indeed verified DCRC's compliance or otherwise satisfied this section. Notably these requirements do not allow a hypothetical statement, which is vague and does not ensure DCRC actually complies. They require a clear statement *listing* the accidental release prevention requirements as *applicable* requirements. The draft permit fails to satisfy this mandate. Further, since the last Title V permit was issued to DCRC, EPA updated the RMP regulations in Part 68. These first took effect on September 21, 2018 – and then were weakened, but some improvements were retained in a final rule issued on December 19, 2019. Those regulations added new requirements, going beyond the RMP, such as coordination with emergency responders, for which the compliance date has now passed, additional emergency response planning requirements, and public meeting requirements.41 Because these are new, it is particularly important to ensure that the Title V Permit includes sufficient specificity to assure compliance with them. Fully applying the Part 68 requirements and, as discussed next, assuring compliance with the general duty requirement in Clean Air Act § 112(r) is especially important because DCRC has had recent safety incidents and release problems that show the need for strong enforcement of the RMP as well as a compliance schedule (as discussed later in these comments). DNREC's own "Violation List" includes a large number of these incidents. *See* Ex. 2 to May 22, 2020 Comment: DNREC Violation List as of June 2019. A review of DNREC's compliance reports demonstrates hundreds of deviations of air requirements that threaten health and safety. *See* Part X, *infra*. In addition, news reports have highlighted other serious incidents. For example, on April 18, 2018, a leak resulted in the release of more than 100 pounds of hydrogen sulfide and sulfur dioxide.[42] And, on March 11, 2020 a fire at the refinery critically injured two workers and	has determined that it is the source's responsibility to make this determination.

created a "huge column of thick, black smoke visible for miles."[43] The Technical Memo accompanying the draft permit does not address any of these incidents, does not satisfy the regulatory requirements for Part 68, *i.e.*, 40 C.F.R. § 68.215, and thus does not meet Clean Air Act Title V requirements.	

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IX. The Draft Permit Fails To Include Provisions To Ensure Compliance With The General Duty Requirement Under Clean Air Act § 112(R). (pg 35) In addition to specific regulatory requirements, there are also requirements for certain types of a "general duty" that apply to DCRC. Section 112(r)(1) of the Clean Air Act directs the facility to operate pursuant to a "general duty" to prevent and reduce harm from "accidental releases." 42 U.S.C. § 7412(r)(1). In particular, the statute provides as follows: The owners and operators of stationary sources producing, processing, handling or storing such substances have a general duty in the same manner and to the same extent as section 654 of title 29 to identify hazards which may result from such releases using appropriate hazard assessment techniques, to design and maintain a safe facility taking such steps as are necessary to prevent releases, and to minimize the consequences of accidental releases which do occur. *Id.* These regulations and statutory provision are "applicable requirements" within the meaning of Title V. 40 C.F.R. § 70.2; *see also* 7 Del. Admin. Code 1130 at § 2. The draft permit is deficient because it includes no term or condition or any monitoring requirements to assure compliance with this "general duty" provision. To do so, DNREC must add language specifying that the general duty is an applicable requirement and ensuring that the facility provides monitoring, reporting, and recordkeeping that can be used to assure compliance with it. Regarding the 112(r)(1) general duty, EPA has emphasized that this provision applies independently and apart from the Part 68 regulations. In denying a petition to object in regard to Part 68, EPA stated as follows: Compliance with the requirements of part 68 does not, however, relieve Masada of its legal obligation to meet the general duty requirements of section 112(r)(1) of the Act to identify hazards that may result in an accidental release, to design and maintain a safe facility taking such steps as are necessary to prevent releases, and to minimize the consequences of an actual accidental release.	The EPA has determined that the General Duty Clause of CAA § 112(r)(1) is not an "applicable requirement" for the purposes of title V, and as such, is an independent requirement outside the scope of title V and should not be included in title V permits. The following response summarizes EPA's stance based on EPA's Hazlehurst Wood Pellets, LLC Order signed 12/31/2020. The General Duty Clause provides: The owners and operators of stationary sources producing, processing, handling or storing such substances have a general duty in the same manner and to the same extent as section 654 of title 29 to identify hazards which may result from such releases using appropriate hazard assessment techniques, to design and maintain a safe facility taking such steps as are necessary to prevent releases, and to minimize the consequences of accidental releases which do occur. *For purposes of this paragraph, the provisions of section 7604 of this title shall not be available to any person or otherwise be construed to be applicable to this paragraph.* The final sentence, omitted by the Commenters and italicized above, means that citizen suits under CAA § 304, 42 U.S.C. § 7604, shall not be available to enforce the requirements of the General Duty Clause; instead it may only be enforced by EPA under CAA § 113, 42 U.S.C. § 7413. If the requirements of the General Duty Clause were

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As the Administrator stated in the Shintech Inc. Title V Order, Permit No. 2466-VO (Sept. 10, 1997), at 12, n.9, "section 112(r)(1) remains a self-implementing requirement of the Act, and EPA expects and requires all covered sources to comply with the general duty provisions of 112(r)(1)."[44] Adding specific terms and conditions to ensure compliance with the general duty is especially important because of the deviations and emission exceedances shown in DCRC's permit file, the incidents documented in recent news reports such as the fire in March 2020, the fact that refineries have a higher frequency of the most serious accidents among regulated industries,[45] and the substantial quantities of hazardous chemicals that DCRC uses, stores, or manages.[46]. The draft permit is deficient because it does not mention—much less ensure compliance with—the general duty requirements. DNREC must include specific terms acknowledging each of these requirements and otherwise assuring DCRC's compliance with them.	included in a title V permit, it would have to be enforceable through enforcement of the title V permit since all standards and limitations in title V permits are enforceable by citizens under section 304. Secondly, the program on which this clause is based "in the same manner and to the same extent" is section 654 of title 29, i.e. the Occupational Safety and Health Act. The general duty clause within the Occupational Safety and Health Act is not implemented through site-specific permits, nor are citizen suits authorized to enforce it. Additionally, the General Duty Clause is enforceable only by the federal government, because CAA § 304 is the only federal authority through which citizens and state or local agencies could enforce this type of CAA requirement, neither citizens nor state and local agencies may enforce the Clause under the CAA. Since the EPA has not delegated the authority to implement or enforce the Clause to states agencies, inclusion of the requirements into the tile V permit would be unenforceable by DNREC. Finally, "applicable requirements" under 40 CFR §70.2 include "…Any standard or other requirement under section 112 of the Act, including any requirement concerning accident prevention under section 112(r)(7) of the Act…" The EPA identified section 112(r)(7) to make clear that certain requirements related to section 112(r)(7) should be considered applicable requirements alongside more

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	traditional emission standards under section 112(r). However, the EPA's decision to not identify other requirements under section 112(r), including the General Duty Clause, reflects EPA's intention not to treat these other provisions under section 112(r) as applicable requirements for title V purposes. In the Shintech Order cited by the Commenters, EPA explained "compliance with the provision of 40 CFR § 68.215…is sufficient to satisfy the legal obligations of section 112(r) for purposes of part 70." The EPA rejected the Shintech petitioners' request for additional permit terms related to section 112(r)(1), while noting the independent enforceability of the General Duty Clause. *Id*. at 12 n.9 ("[C]ompliance with the requirements of part 68 does not relieve Shintech of its legal obligation to meet the general duty requirements of section 112(r)(1) of the Act …Section 112(r)(1) remains a self-implementing requirement of the Act, and EPA expects and requires all covered sources to comply with the general duty provisions of 112(r)(1)"). The EPA further notes the following: • The EPA's General Duty guidance documents includes a comprehensive Guidance for Implementation of the General Duty Clause which details the mechanisms through which the General Duty Clause would be implemented and enforced and never once mentions permitting.

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	• The EPA has characterized the General Duty Clause as a self-implementing or self-enabling requirements, meaning that the Clause is meant to be implemented and enforced independently. • The General Duty Clause is, as its name suggests, a *general* duty. Identifying *specific* obligations within each source's title V permit would conflict with the notion of a general duty. • In the absence of an industry standard, a source's knowledge of a potential hazard and a feasible means to abate it is relevant to its general duty under CAA § 112(r)(1). Should a source learn of a hazard and a feasible means to abate it after its permit is written, the General Duty Clause would ordinarily hold the source responsible for its knowledge. Given that the factual circumstances and knowledge at the source, as well as any relevant industry guidelines, can change frequently, the source's obligation under the General Duty Clause are necessarily fluid. If General Duty Clause obligations were to be included in title V permits as applicable requirements, the relevant permit terms would need to be constantly updated to accurately reflect a source's obligations. Overall, identifying specific General Duty Clause requirements would not only curtail the flexibilities rightly available to a source, but it would also undermine the General Duty Clause by limiting the scope of a source's potential

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	obligations to those specific requirements contained in the permit.
[A table included in this section has been omitted from this Memo for brevity. Please see original document.] X. DNREC Must Revise The Permit So That It Satisfies The Requirement To Include A Compliance Schedule To Assure DCRC's Compliance. (pg 36) Title V requires a compliance schedule for any current non-compliance. 40 C.F.R. § 70.6(c)(3). In addition, § 70.5(c)(8)(iii)(C) requires permit applications to include: A schedule of compliance for sources that are not in compliance with all applicable requirements at the time of permit issuance. Such a schedule shall include a schedule of remedial measures, including an enforceable sequence of actions with milestones, leading to compliance with any applicable requirements for which the source will be in noncompliance at the time of permit issuance. This compliance schedule shall resemble and be at least as stringent as that contained in any judicial consent decree or administrative order to which the source is subject. Any such schedule of compliance shall be supplemental to, and shall not sanction noncompliance with, the applicable requirements on which it is based. *Id.*; *see also* 7 Del. Admin. Code 1130 §§ 5.4.8.3; 6.3.3 (Del. compliance schedule requirement).	In the cited condition a compliance schedule is required for facilities that are not in compliance at time of permit issuance and does not necessarily include past noncompliance. A compliance schedule is developed to return a facility or unit back into compliance.
DNREC must require a compliance schedule in the permit because publicly available evidence demonstrates that DCRC is "not in compliance" with applicable requirements. In fact, EPA has found that DCRC is in "significant noncompliance," and has been for the last twelve quarters.[47] EPA's Enforcement and Compliance History Detailed Facility Report for DCRC is	The Commenters have misrepresented the findings of the EPA by identifying that DCRC is in "significant noncompliance for the last twelve quarters". "Significant Noncompliance", or SNC is a term used in the Clean Water Act and RCRA and is not applied

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attached as Exhibit 2. As that document shows, EPA has determined that DCRC's current "compliance status" is: "High Priority Violation."[48] That document relies on some enforcement actions undertaken by DNREC as well as EPA.[49] In EPA's ECHO database, "HPV (this term is used in the Clean Air Act program) . . . is the most serious level of violation noted in EPA databases. This designation provides an indication of violations or noncompliance events at a given facility posing a more severe level of concern for the environment or program integrity."[50] Thus, EPA's determination provides evidence that DCRC is "not in compliance," and that it is critical to include a compliance schedule into the permit.	to air programs. High Priority Violations is a Clear Air Act term that identifies six specific scenarios of interest to EPA (particularly those were violations last longer than 7 days). In DCRC's case this most often represents performance stack test where the results are incrementally higher that permitted emissions and are resolved at the next earliest scheduled stack test. These failed stack tests become HPV's because (1) results of a failed stack test are not typically available within 7 days, (2) the units are considered out of compliance until a successful stack test is completed, and (3) rescheduling a stack test takes longer than 7 days; as such, nearly every failed stack test violation is considered an HPV after 7 days. The ECHO database also provides the caveat that "[HPVs] are not considered resolved until the source is in full physical compliance and any enforcement requirements are complete (penalties are paid, etc.). Therefore, a facility's compliance status may remain ["HPV"] even after the violation has been addressed." Therefore, EPA's HPV designation is not sufficient to identify a facility as not in compliance with the CAA and its permit as any given point in time.
DCRC has entered into consent decrees, settlements and administrative orders, due to violations of clean air requirements, including the following. Some are EPA actions and in some DNREC has completed administrative enforcement orders with DCRC during the term of the prior Title V permit.[51] Formal enforcement actions:	The NOVs issued and enforcement actions taken that the Commenters reference are due to short-term incidents rather than ongoing noncompliance. Indeed, most of the NOVs identify that the noncompliance events have ended, and corrective actions taken.

General Public Comment Summary	DAQ Responses
• January 27, 2020 - Settlement agreement includes an administrative penalty of $67,968.29 and $2,031.71 in recovery costs.[52] July 11, 2019 - Settlement agreement reached between DNREC and DCRC for noncompliance with air permits issued by DNREC. An administrative penalty of $950,000 issued to DCRC for violations resulting from the past eight years following the restart of the refinery in 2010.[53] • March 5, 2018 - Administrative Penalty order from DNREC to DCRC requiring $37,888 in State/Local Penalties.[54] • November 18, 2015 - EPA steps in with formal enforcement actions for the refinery resulting in DCRC paying over $112,000 in compliance costs as a result of using invalid Renewable Identification Numbers (RINs) to meet its Renewable Volume Obligation (RVO).[55] • 2001 Consent Decree entered as a result of *United States v. Motiva Enterprises LLC*, No. H-01-0978.[56] Informal enforcement actions: • Notice of violation from DNREC to the refinery, with the latest one dated July 9, 2020.[57] • Notice of Administrative Penalty Assessment and Secretary's Order Issued on November 4, 2019 addresses violations relevant to Part 2 of the Title V permit.[58] Specifically, the order focuses on unpermitted emissions from the Fluid Coking Unit on January 14, 2019.[59] The notice also addressed unpermitted emissions from the Crude Unit Area fire on February 3, 2019 lasting until the next day.[60] The fire resulted from a 3-inch gas line pipe leak due to inadequate winterization techniques.[61] Further, the fire released 842 lbs of HC, 592 lbs of SO_2, 438 lbs of CO, 80 lbs of NO_x, 2 lbs of H_2S and an additional 4,300 lbs of SO_2 from flaring.[62] Lastly, the notice addressed multiple flaring-related violations dating from January 1, 2019 through June 30, 2019.[63]	

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• Notice of Administrative Penalty issued to DCRC by the secretary on July 24, 2013 for non-compliance with air permit.[64] Others listed in ECHO database:[65] *[Table omitted for brevity. Please see original document.]* Thus, a review of the information provided in the ECHO database revealed several enforcement actions that have been taken by both EPA and the state against DCRC including 27 informal enforcement actions within the past five years.[66]	
Additionally, the draft permit includes conditions from a 2001 consent decree that did not appear in previous versions of DCRC's Title V permit– without explanation for why DNREC waited so long to incorporate these requirements into the permit. Draft Permit: AQM-003/00016 – Part 1 (Ren 3), Part 2 (Ren 2), Part 3 (Ren 3) Delaware City Refining Company at 18 (citing Motiva CD at 30, 34 & 43 (2001)).[67] During the meeting held on July 14, 2020, the refinery representative gave a PowerPoint presentation stating that the 2001 consent decree was still active and contained "mostly various leak detection and repair requirements" and that those requirements "were transitioned into the permit [as well as] three conditions previously omitted."[68] Therefore, it appears that now the draft permit is incorporating requirements such as conditions 76, 93 and 117 for the first time, when they should have been included since the signing of the consent agreement in 2001—without any explanation for years of delay. Although waiting so long to incorporate these applicable requirements is obviously problematic, Commenters support incorporation of these requirements now. Additionally, to ensure compliance with the consent decree, DNREC must include requirements necessary as part of a compliance schedule, as the decree states "any units described in paragraph 206 shall be on a compliance schedule in order to be released from liability under paragraphs 204 through 206."[69] Therefore, the DCRC	The Consent Decree "United States of America et al., v. Motiva Enterprise LLC" No. H-01-0978 is still active and most of its requirements were transitioned into the permit in the early 2000s. These conditions referenced were inadvertently omitted when the bulk of the Consent Decree conditions were incorporated into the permit. DCRC is required to and has consistently complied with the terms of the Consent Decree. During an audit of the Consent Decree terms, it was identified that these conditions were not duplicated in the permit and the correction was made as part of this renewal. For periods where a compliance schedule is necessary, Paragraph 206 of the Motiva Consent Decree provides release from liability in specific cases for the duration of the compliance schedule. The provision does not preemptively require a compliance schedule for facility units.

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permit must include a compliance schedule for these covered units: FCCUs and FCUs.	
As these various actions described above show, both EPA and DNREC have determined (and at times, it appears DNREC has reported) that emissions or other actions were "not in compliance" with applicable Clean Air Act requirements. DNREC has further recognized DCRC's non-compliance through the "Violation List" that the Department has complied for the refinery, a version of which Commenters attached as Exhibit 2 to their May 22 comments (and which we incorporate here by reference). Yet there is no discussion of any non-compliance in the DNREC "Technical Memo" or draft permit, nor indication of how any term or condition in the draft permit assures that the non-compliance will be remedied. Further, a number of DCRC's own compliance reports similarly show significant exceedances and deviations, as compiled in the attached Exhibit 3– over 200 compliance reports or other documents show non-compliance or issues of compliance concern that the permit should address.[70] An analysis of these documents shows recurring or consistent compliance issues mostly associated with the refinery's FCU, FCCU, flares, and continuous catalytic reforming system.[71] Some of these compliance issues have caused large releases of air pollution. For example, a February 13, 2019 coke boiler trip released 600,000 pounds (lbs) of SO_2, 4,500 lbs of NH_3, 11,500 lbs of H_2S, 550 lbs of HCN, and 335,000 lbs of CO.[72] This incident is not alone; there are numerous others that have occurred at several of the refinery's units.[73] For example, large releases tended to occur when the refinery used pollution control bypasses to get problems with the Coker units or flaring incidents under control.[74] The refinery reports show a significant number of flaring incidents occurring from 2014 to the present, including the following: • September 13, 2019: the NESHAP Subpart CC periodic report lists block periods of flaring that do not meet the combustion zone operating limit in the south flare.	A compliance schedule is developed for those "…sources not in compliance with all applicable requirements at the time of permit issuance" which "include[e] an enforceable sequence of actions with milestones, leading to compliance with any applicable requirements for which the source will be in noncompliance at the time of permit issuance." (§40 C.F.R 70.5(c)(8)(iii)(C). The Commenters have identified short-term deviations and violations that were corrected within hours. The list of violations in the "Delaware Environmental Navigator" also identifies the aforementioned stack test failures that have since been resolved. The Commenters have not identified any violations for which DCRC is currently out of compliance or for which they were out of compliance at the time of application. In direct response to the assertion that a Partial Compliance Evaluation of the Crude Unit dated October 16, 2019 mentions an exceedance of the 12-month SO_2, visible emission, and NO_x limits, presumably, the fire and flaring event referenced by the Commenters is the Crude Unit Area fire that occurred in February 2019, this incident did not result in an exceedance of any annual or 12-month rolling limits. Flaring is a normal part of refinery operations to safely handle and dispose of combustible gases that

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• Oct 16, 2019: lists a partial compliance evaluation report mentioning that the SCR, SWS, crude unit and crude unit heaters exceeded their SO_2, visible emission, and NOx limits for the 12-month rolling basis due to a fire and flaring event.
• January 30, 2017 RATA test showed flaring event on July 14 releasing 5,050 lbs of sulfur dioxide, with an additional flare releasing 580 lbs of sulfur oxide.
• In a March 30, 2017 Notice of Violation for the Coker main fractionator and wet gas compressor, DNREC noted the refinery's high rate of flaring and therefore recommended that enforcement for such incidents be processed periodically instead of individually.
  ○ Within that notice the following flaring events were mentioned:
  ▪ 7/14/16 -released 5,050 lbs of SO_2
  ▪ 10/21/16 - released 191 lbs of SO_2
  ▪ 11/9/16 - released 581 lbs of SO_2
• July 28, 2017 RATA test showed incident report for March 10 flaring with 230 lbs of SO_2 released and 6,100 lbs of CO released from knockout drum being over-pressured; along with another incident report for March 28 flaring releasing over 18 lbs of SO2; and on April 29 a flaring incident report was filed due to accumulation of liquid in the depropanizer resulting in 643 lbs of SO_2 being released.
• December 9, 2016: FCCU wet gas compressor loss led to a flaring incident that released 580 lbs of SO_2.
• November 3, 2015 NOV states flaring in unit 45 which resulted in increased H_2S content in RFG and subsequent combustion in various heaters and boilers leading to several exceedances with a total of 3,070 lbs of SO_2 being released and a violation of permit and CFR limits; 8/21/15 unpermitted release of 9,400 lbs of SO_2 from flare stack and additional 4,200 lbs of SO_2 from 24-K-1 machine mechanical failure and fire; 8/28/15 sour LPG mixture from FCCU
	are released during refinery upsets, startups, and shutdowns in order to minimize impacts on the environment. The amount of pollution emitted from the flare is dependent on the duration and rate of the flaring, along with the quantity and H_2S content of the gas sent to the flare. Flaring converts toxic pollutants such as H_2S gas into less dangerous compounds such as SO_2. The release of pollutants greater than the Delaware Reportable Quantity must be reported to the Delaware Environmental Release Notification System. DNREC DAQ conducts enforcement actions for releases from the flare, but recognizes that these releases are lower in quantity and severity than uncontrolled emissions.

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gas plant leaked leading to emissions release from open vent valve on fractionator; federally reportable violations include DGA upset causing all affected fuel gas combustion devices to combust non-compliant fuel gas from 8/2/15 to 8/6/15; 8/21/15 FCCU fire caused unpermitted release of 13,600 lbs SO_2 from flare; unpermitted release of 260 lbs H_2S, 5,200 lbs of C3H8 and 3,900 lbs of C3H6 from the FCCU fractionator on 8/28/15. • January 30, 2014 flaring incident occurred with the FCCU wet gas compressor. The incident report stated that the motherboard shorted and the UPS system for compressors failed, releasing 1,001 lbs of SO_2. • February 6, 2014 incident report states that a four-hour flaring event caused release of 891 lbs of SO_2 from the north flare stack. April 11, 2014 loss of power incident report states a power interruption resulting from meteorological conditions led to gas flaring and bypass of the gas Coker CO Boiler and WGS; releasing 187,000 lbs of SO_2, 1,230 lbs of H_2S, 16,500 lbs of CO, 36 lbs HCN, and 221 lbs of NH3, within a duration of 3 hours. • April 14, 2014 incident report noted the release of 929 lbs of SO_2 in just over an hour of flaring, resulting from pressure rising in the flare recovery heater. • April 25, 2014 flaring event released 567 lbs of SO_2 in 43 minutes, as a result of the flare recovery unit header rising after an electrical short in the motor. • May 16, 2014 flaring incident report noted 196 lbs of SO_2 released in 13 mins; flare recovery header rose flaring north and south stacks; caused by recent change in crude blend used to try to stabilize desalters. • May 22, 2014: a total of 407 lbs of SO_2 was released in 25 minutes from the compressor starting inadvertently when it was partially loaded.[75]	

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The compliance document spreadsheet lists many other flaring incidents on the following dates: September 15 and December 18, 2014; January 9 and 30, March 13, April 13, May 7, August 21, and October 14 and 29, 2015; January 6, March 18 and 23, July 28, and November 18, 2016; March 9, April 13, and May 12 and 26, 2017; February 7 and March 20, 2018; March 4 and 11, April 12, May 14, June 3, August 28, and November 22, 2019.[76]	
As noted above, DNREC recognized the seriousness of the flaring problems at the refinery and therefore has asked DCRC to report flaring events periodically rather than individually–given the substantial number of events. This is further evidence demonstrating the need for a compliance schedule to assure compliance with both the flaring requirements in the draft permit and the consent decree.[77] The incidences of non-compliance and compliance issues in these documents demonstrate that additional terms and conditions are required to assure compliance with applicable requirements from which DCRC has deviated. They also show that there are terms that could and should be easily added to address these problems. For example, a number of releases of pollutants were attributed to power losses or electrical shortages – such that back-up power or other power planning arrangements could correct and prevent this problem.[78] As EPA stated in a prior objection to a Title V permit, "a facility that is operating in violation of an applicable requirement must be made subject to a compliance schedule even if a related enforcement action remains unresolved as of the date of permit issuance."[79] The compliance spreadsheet is based on DCRC's compliance reports and documents provided by DNREC from the time period of 2014 to 2020. This is information DNREC has at hand, yet appears to have ignored so far in this permit proceeding. There is no evidence in the Technical Memo showing that DNREC has reviewed or considered any of	DNREC has not requested that DCRC report flaring incidents on a periodic basis, DCRC continues to report flaring incidents as they occur to DERNS and the Division as required. The Commenters have misunderstood that the Division has chosen to address enforcement of flaring incidents on a semi-annual basis. DCRC is permitted to use its flare and has operated it in compliance with state and federal regulations. DCRC has not, however requested an emission limit for its North or South flare and as such emissions from the flare is in violation of its permit. The effect of the monitoring conditions is to identify noncompliance periods and respond accordingly to end the noncompliance event. The effect of recordkeeping and reporting conditions is to assure compliance and enforceability by documenting non-compliance periods. The violations are not due to a lack of monitoring, recordkeeping, or reporting conditions, instead the number of NOVs indicate that those monitoring conditions are correctly identifying

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this information. There is simply a statement that there is "no compliance schedule." Tech. Memo at 19. Based on the information available regarding DNREC's compliance history, DNREC cannot justify refusing to include a compliance schedule, much less in such a cursory fashion. DNREC must review the available information, including the evidence of noncompliance or compliance issues discussed in these comments and our May 22 comments (at pages 4-5), and ensure that each of the terms and conditions or commitments necessary to come into compliance is incorporated into the final Title V permit for this facility as part of an enforceable compliance schedule, or adequately explain why that is not required. DNREC should also evaluate and address the extent that ongoing violations could be addressed through adding additional monitoring, recordkeeping, and reporting requirements not currently contained in the draft permit. Based on Commenters' review, additional monitoring, recordkeeping, and reporting requirements targeted at the specific violations and problems identified above, as well as in DNREC's own files, could help remedy these problems. DNREC should ask its own enforcement division and EPA's enforcement division for guidance on what additional terms and conditions are needed to prevent the kinds of problems that DNREC has had in the past. Furthermore, DNREC should consider and discuss with affected members of the public what additional remedies they believe should be evaluated to strengthen protection for public health, including (though it is not directly relevant to this Title V proceeding) working with the legislature to modernize fines from 1970's price levels adjusted for inflation. Some of the terms and conditions that DNREC should evaluate and consider adding to the permit or otherwise implementing, with public input, include: • Requirement for back-up power or other steps needed to avoid releases related to power outages.	violations as they occur, and the brief duration of noncompliance events suggests that the DCR responds appropriately when noncompliance occurs. At the time of the renewal application and recommended issuance, the units were not out of compliance. The DCR submits, and DNREC reviews, semi-annual compliance certifications that list each permit term and its compliance status. The Compliance Certification submitted for the semi-annual period between January 1, 2020 and June 30, 2020 does not identify any ongoing noncompliance issues.

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• Requirements for enhanced monitoring and reporting for flaring incidents and requirements to prevent excessive flaring. • Additional monitoring for the FCU and FCCU. • Additional terms or conditions to assure compliance with the Risk Management Program and to satisfy the Department's oversight and enforcement authority pursuant to 40 C.F.R. § 68.215(e). • Enhanced fenceline monitoring as discussed below. The permit record ignores DCRC's compliance problems and shows DNREC has not done the minimum needed to evaluate or attempt to address any actual or potential ongoing noncompliance in this draft permit. DNREC's failure to fulfill its responsibility to address the need for a compliance schedule and to include additional requirements in this permit contravenes Congress' clear intent for a Title V permit to serve as a vehicle for bringing sources into full Clean Air Act compliance. To properly implement Title V requirements, DNREC needs to review available compliance information and determine whether DCRC is currently in full compliance with Clean Air Act requirements. If DCRC is not in full compliance (as available evidence suggests), then the Department must incorporate a compliance schedule into the permit for each applicable requirement for which it finds DCRC is in violation. Even if DNREC determines that a compliance schedule is not required, DNREC must provide a reasoned basis for refusing to add such permit terms. If DNREC maintains that a compliance schedule is not required, Commenters urge DNREC to seek public input regarding enforcement and compliance issues in a valid public hearing and in follow-up discussion with Commenters and other affected community residents. DNREC should not allow incidents like those discussed above to keep occurring without adequate corrective action, information, and emergency response to protect the community.	

General Public Comment Summary	DAQ Responses
XI. DNREC Should Require DCRC To Implement Real-Time, Optical Remote Sensing At The Fenceline To Assure Compliance With Applicable Requirements. (pg 43) Commenters have highlighted many deficiencies in the draft permit – including a number of illegal exemptions and loopholes, and a failure to include a schedule to assure full compliance with all applicable Clean Air Act requirements (as discussed above). EPA has recognized the need to use and implement fenceline monitoring at all U.S. petroleum refineries to assure compliance with the National Emission Standards for Hazardous Air Pollutants. Since the time EPA issued that rule, fenceline monitoring has made a great leap forward at some refineries around the nation, particularly those in the Los Angeles area due to implementation of Rule 1180 by the South Coast Air Quality Management District. The Bay Area Air Quality Management District also requires real-time fenceline monitoring for local refineries. More than just the passive samplers in the NESHAP are required here "to assure compliance" with applicable Clean Air Act requirements, as evidenced by the serious compliance issues as identified in EPA's ECHO database, DNREC's "List of Violations" as of 2019, and DCRC's compliance reports, *see* Part X, *supra*, all of which are due presumably in part to the past authorization of excess emissions during SSM periods through the various unlawful permit loopholes discussed above, *see* Part II, supra. 42 U.S.C. § 7661c(c) (each Title V permit "shall set forth inspection, entry, monitoring, compliance certification, and reporting requirements to assure compliance with the permit terms and conditions"). Here, to satisfy the Act's requirement to include in the permit monitoring and other requirements necessary to assure compliance, and, or alternatively, to address the need for a compliance schedule regarding any continuing compliance concerns, DNREC should do more than just fully implement the NESHAP benzene fenceline monitoring requirements. The South Coast Air Quality Management District has promulgated an even stronger rule that requires realtime fenceline monitoring at petroleum	There is no regulatory basis for an expanded fence-line monitoring program. The provisions of the benzene fence-line monitoring required under 40 CFR Part 63 Subpart CC (NESHAP from Petroleum Refineries, 63.658) to conduct benzene sampling along the facility property boundary are included in Part 2 – Section oc of the Permit and the monitoring requirements are included in the semi-annual compliance certifications. The facility has not experienced compliance concerns related to benzene pollution or the benzene fence-line monitoring program. DAQ continues to issue Notices of Violations for excess emissions events that occur and pursues enforcement penalties accordingly. The permit relies on measuring compliance at the emission unit by periodic or continuous monitoring rather than assess compliance by fence-line monitoring. The emissions from the refinery's major emission sources occur from tall stacks (over 200 feet), a receptor located at the facility's fence line is not the best measure of unit compliance or proper operation. DAQ operates an air monitoring network throughout the State including a station in Delaware City which presently monitors SO_2, and $PM_{2.5}$ pollutant levels. This station meets the siting requirements of the US EPA and is in accordance with federal requirements and guidelines and is providing quality assured data.

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refineries that assesses additional pollutants – including sulfur dioxide, nitrogen oxides, total volatile organic compounds (non-methane hydrocarbons), and specific VOCs: formaldehyde, acetaldehyde, acrolein, 1,3-butadiene, styrene, BTEX compounds (benzene, toluene, ethylbenzene, xylenes), as well as hydrogen sulfide, carbonyl sulfide, ammonia, black carbon, hydrogen cyanide (and hydrogen fluoride, if used). This rule recognizes the need for and availability of real-time air monitoring equipment, including FTIR (Fourier-transform infrared spectroscopy) and open-path UV-DOAS (ultraviolet differential optical absorption spectroscopy). It requires a refinery to propose a fenceline monitoring plan, and provides for public notice-and-comment on that plan. The Bay Area Air Quality Management District rule also provides a valuable model for DNREC that it must consider implementing in this permit. Under each of those regulatory frameworks, many refineries have submitted and are implementing real-time fenceline monitoring plans. These comments cite links with plans implemented at some refineries showing DNREC must consider and require similar monitoring in this draft permit. DNREC should add, at least, the following to the permit: • Real-time monitoring for all major pollutants emitted, in addition to benzene, similar to the SCAQMD and BAAQMD monitoring plans. For example, the SCAQMD requires, and DNREC should similarly require, fenceline monitoring for at least each of the following pollutants: o Criteria air pollutants: Sulfur Dioxide, Nitrogen Oxides o Volatile Organic Compounds: e.g., total VOCs (Non-Methane Hydrocarbons), 1,3-Butadiene, Styrene o BTEX Compounds (Benzene, Toluene, Ethylbenzene, Xylenes) o Other Pollutants: Hydrogen Sulfide, Carbonyl Sulfide, Ammonia, Black Carbon, Hydrogen Cyanide. • Back-up monitoring if power fails	It should be noted that the SCAQMD did not establish these monitoring conditions, for the six large refineries in Los Angeles via a permitting action but developed Rule 1180 to satisfy the larger state-wide California Assembly Bill No. 1647, requiring refineries to maintain fence-line monitoring systems, and the development of refinery-related community monitoring sites. Additionally, the refineries in Los Angeles tend to be located in close proximity to its neighbors, whereas, with the exception of traffic along Route 9 and Wrangle Hill Road, the DCR has maintained a buffer zone between its fenceline and those of residential neighborhoods and commercial businesses.

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• Contemporaneous reporting online (so that the public can access the data), with quality assurance weekly; and • Community alert notification options. • Publicly accessible online monitoring data reporting. These are components in the South Coast or Bay Area Air Quality Management District examples discussed above, and there are other components from these examples that DNREC should also consider implementing to assure DCRC's compliance, and avoid upsets and safety concerns similar to those this refinery has experienced in the past. Commenters would be glad to work with DNREC to assist in implementing similar requirements here if DNREC wishes to seek community input.	

Table 3: AMY ROE ON BEHALF OF UNDERSIGNED DELAWARE RESIDENTS

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AMY ROE ON BEHALF OF UNDERSIGNED DELAWARE RESIDENTS Now more than ever, we need clean and healthy air. In the midst of a raging global pandemic, we urge the Delaware Division of Natural Resources and environmental Control to strengthen the Title V permit for the Delaware City Refinery to assure full compliance with all applicable Clean Air Act requirements that protect public health and well-being. Without the permit changes called for in technical comments submitted by Delaware Audubon Society, Sierra Club, Environmental Justice Health Alliance for Chemical Policy Reform, the Widener Environmental and Natural Resources Law Clinic, Environmental Integrity Project, and Earthjustice, DNREC's draft permit will not comply with the Clean Air Act.	The DAQ prioritizes improvement of the ambient air quality through reduction in air emissions of normal operation. Because these normal operation periods represent the vast majority of operating time and the bulk of any emissions, reduction of emissions in those areas represent the greatest potential for improvement in air quality. DAQ continues to require the DCR to employ control devices, or equivalent methods, to reduce air emissions. Release events are handled through enforcement actions beginning with Notices of Violations, and culminating with fines and/or improvement projects.

Communities affected by the Delaware City Refinery's pollution need clean air now. Clean air is a basic human need. The Delaware City Refinery, located at 4550 Wrangle Hill Road in Delaware City, emits volatile organic compounds and hazardous air pollutants, like benzene, 1,3-butadiene, and hydrogen cyanide, that contribute to ozone and/or can cause cancer, birth defects, neurological, respiratory and other health impacts. The refinery emits sulfur dioxide and nitrogen oxides, which can cause or contribute to asthma, cardiovascular, and environmental harm. The refinery's emissions also include particulate matter (soot) which can cause and contribute to early death, heart attacks, asthma, difficulty breathing, and other serious health effects. DNREC has the legal responsibility to protect the Community from these health threats and to fully satisfy Title V of the Clean Air Act by assuring DCRC does not operate without a lawful permit. On January 27, 2020, the U.S. Health and Human Services declared a national health emergency in the United States due to community spread of COVID-19.3 This virus currently has no effective vaccine and few treatments are available. COVID-19 causes particular harm to the respiratory system, and research has shown people exposed to air pollution face worse illness and greater risk of death from this virus. The virus and air pollution from the refinery disproportionately harm communities of color including the approximately 81,000 Delaware City residents who live within a five mile radius of the refinery—of whom 47% are people of color, 26% are youth (under the age of 18), 8% are seniors over the age of 65, and nearly a quarter (19,074) live below the poverty level. It is DNREC's job to protect the health and well-being of communities in Delaware City and downwind of the refinery– including the birds, wildlife, waterways, and natural areas that we care about and want to be able to continue to enjoy. Herons and egrets who nest each year at the Pea Patch Island Nature Preserve also need clean air to continue to thrive. For DNREC to do its job and satisfy the Clean Air Act, it must correct the following serious problems with the DCRC draft permit and permit process:	

1. DNREC must grant a valid public hearing in which the public can speak. After local groups timely requested a public hearing, the meeting that DNREC held on July 14 did not include any opportunity for the public to speak or ask questions.7 DNREC must give the public an opportunity to *speak*, and to be heard, as the Clean Air Act requires and as Governor Carney directed in his 2020 proclamation. DNREC may satisfy this requirement during the COVID-19 pandemic by providing a live comment opportunity by telephone or video through the Internet service, WebEx, that DNREC used for the July 14 hearing. Other states are holding valid public hearings during the pandemic and DNREC has no excuse for refusing to hold a valid public hearing for the DCRC permit. The Clean Air Act requires both an opportunity for comment *and* an oral hearing.	Following the conclusion of the public hearing and the closing of the public comment period the Division of Air Quality (AQ) prepares this Technical Response Memorandum for the Hearing Officer. This memo responds to technical comments submitted during the initial public notice period, the public hearing comment period, and the 15-day facility comment period. Technical comments are those that are related to the facility, and its units as they relate to the air permit and relevant state and federal air regulations. Comments submitted regarding the format of the public hearing and its exclusion of live oral comments during the hearing are administrative concerns and are not technical in nature and will not be addressed in this Technical Response Memorandum prepared by AQ. Instead, this and other administrative concerns, as appropriate, will be addressed in the Hearing Officer's Report and Secretary's Order.
2. Remove all unlawful and harmful exemptions for air pollution. Make clear that clean air requirements apply at all times and remove the unlawful exemptions, affirmative defense, and other similar provisions that the permit contains, some of which effectively give the refinery free rein to release uncontrolled toxic and other air pollution during startups, shutdowns, maintenance, emergencies, and malfunctions at the refinery. Placing these provisions into the permit cuts the heart out of core requirements by giving the refinery advance authorization to avoid satisfying clean air terms and conditions. The public needs clean air protection to be continuous and enforceable even during startups, shutdowns, maintenance, emergencies, and malfunctions. That is	As summarized in the table above, many of the normal operating limits are more stringent than those required by state and federal regulations and the exemptions provided during startup, shutdown, or other short-term operating conditions are bounded by an emission limit often with a defined duration limit and does not contradict the requirements of federal or state regulatory programs.

the only way that the refinery will have full incentive to comply and to prevent these incidents in the first place, to the greatest extent possible.	
3. Ensure the permit includes applicable requirements designed to protect the community from fires, explosions, and toxic releases by the refinery. Ensure DCRC fully complies with the Accidental Release Prevention, Risk Management Program and General Duty requirements, and acts in advance to prevent releases and protect the community from toxic releases and safety threats. The permit does not include sufficient conditions to assure compliance with these requirements – which are particularly important in view of the repeated safety problems the refinery has had. Most recently, a fire on March 11, 2020 critically injured two workers and created a "huge column of thick, black smoke . . . visible for miles."	Part 68.215(d) allows the State to delegate the authority to regulate Part 68 to a state agency other than the air permitting authority; the Accidental Release Prevention (ARP) Program is the delegated agency. The EPA has determined that the General Duty Clause of CAA § 112(r)(1) is not an "applicable requirement" for the purposes of title V, and as such, is an independent requirement outside the scope of title V and should not be included in title V permits.
4. Include specific terms and conditions that assure compliance with all applicable clean air requirements, as well as sufficient monitoring, recordkeeping, and reporting. The permit must assure compliance with the 2015 national emission standards for refineries, including benzene fenceline monitoring, as detailed terms and conditions. Five years ago, during the last permit renewal, DNREC refused to implement fenceline monitoring. Now that the federal regulations require this, DNREC must ensure that the compliance certification fully includes the monitoring and corrective action requirements. Also, in view of the serious issues the refinery has had in recent years, DNREC has failed to require prompt compliance for any continuing problems. EPA has recognized that, over the last 3 years, the DCRC has experienced "high priority violations" or "violation[s] identified" for important clean air requirements. Finally, due to the serious issues with compliance as reflected in the consent decree and settlement addressed in this permit renewal and EPA's	The provisions of the benzene fence-line monitoring required under 40 CFR Part 63 Subpart CC (NESHAP from Petroleum Refineries, 63.658) to conduct benzene sampling along the facility property boundary included in Part 2 – Section oc of the Permit and the monitoring requirements are included in the semi-annual compliance certifications. The facility has not experienced compliance concerns related to benzene pollution or the benzene fence-line monitoring program. DNREC continues to issue Notices of Violations for excess emissions events that occur and pursues enforcement penalties accordingly. The permit relies on measuring compliance at the emission unit by periodic or continuous monitoring

enforcement report, DNREC should also require DCRC to implement real-time fenceline monitoring, to assure compliance with all applicable requirements in this permit. In particular, DNREC should follow its sister permitting agency in dealing with similarly serious air pollution, health, and environmental justice concerns at refineries in the City of Los Angeles (the South Coast Air Quality Management District). DNREC should supplement the permit here to require at least the same real-time fenceline monitoring for a list of dangerous pollutants that the SCAQMD requires in Los Angeles, and further strengthen monitoring requirements for flares as the South Coast also requires.	rather than assess compliance by fence-line monitoring. The emissions from the refinery's major emission sources occur from tall stacks (over 200 feet), a receptor located at the facility's fence line is not the best measure of unit compliance or proper operation. However, DNREC operates an air monitoring network throughout the State including a station in Delaware City which presently monitors SO2, and PM2.5 pollutant levels. This station meets the siting requirements of the US EPA and is in accordance with federal requirements and guidelines and is providing quality assured data. It should be noted that the SCAQMD did not establish these monitoring conditions, for the six large refinery in Los Angeles via a permitting action but developed Rule 1180 to satisfy the larger state-wide California Assembly Bill No. 1647, requiring refineries to maintain fence-line monitoring systems, and the development of refinery-related community monitoring sites. Additionally, the refineries in Los Angeles tend to be located in close proximity to its neighbors, whereas, with the exception of traffic along Route 9 and Wrangle Hill Road, the DCR has maintained a buffer zone between its fenceline and those of residential neighborhoods and commercial businesses.

5. Environmental justice Address environmental justice as a key concern to satisfy public participation requirements, and to strengthen the permit to protect public health as discussed above, including by strengthening monitoring and removing unlawful exemptions and other similar barriers to enforcement by the public. DNREC should also commit to reduce cumulative impacts and address the unfairness that the refinery's pollution, along with that of other major polluting sources, is falling disproportionately on communities of color and low-income people, including children, in Delaware City, by fully satisfying Title V and exercising DNREC's full authority to protect Delaware residents' health. Conclusion During a global pandemic that targets the respiratory system, assuring healthy air quality for Delaware residents has paramount importance. By this permit, DNREC must do all it can assure adequate health protection for the communities near and downwind of the Delaware City Refinery. DNREC must fulfill its legal and moral responsibility to protect individuals from harm resulting from pollution and to hear and address Delaware residents' concerns and not silence community voices. We support the detailed technical comments filed by Delaware Audubon Society, Sierra Club, the Environmental Justice Health Alliance for Chemical Policy Reform, the Widener Environmental Law Clinic, Environmental Integrity Project, and Earthjustice during this comment period. Please make all necessary changes to strengthen the DCRC permit to assure full compliance with the Clean Air Act.	The Division recognizes the importance of the work that it does and prioritizes improvement of the ambient air quality through reduction in air emissions of normal operation. Because these normal operation periods represent the vast majority of operating time and the bulk of any emissions, reduction of emissions in those areas represent the greatest potential for improvement in air quality. Throughout this Technical Response Memo, DAQ has shown that this permit has more stringent conditions than those required by either the State of Federal regulations. The Division continues to require the DCR to employ control devices, or equivalent methods, to reduce air emissions and any release events, as they occur, are handled through enforcement actions beginning with Notices of Violations, and culminating with fines and/or improvement projects.

Table 4: Response to Non-Technical Comments

General Public Comment Summary	DAQ Responses
EMMA CHEUSE, ESQ., ON BEHALF OF THE PUBLIC HEARING REQUESTERS: Request for a valid public hearing on the Title V Draft Renewal Permit to be scheduled with at least 30 days' public notice. On May 22, 2020, the undersigned organizations requested a public hearing under Title V of the Clean Air Act to raise concerns regarding the renewal of the Delaware City Refining Company (DCRC)'s Title V permit. The Delaware Department of Natural Resources and Environmental Control (DNREC) has issued a notice for a "public hearing."1 However, the "hearing" does not allow for live comments from the public or any other meaningful public participation. As currently noticed, the hearing will not engage the public effectively, fails to satisfy Title V of the Clean Air Act or Delaware's implementing regulations, and fails to advance core objectives of environmental justice. If DNREC does not grant a valid public hearing, EPA must object pursuant to the Act, and to satisfy its obligations under Executive Order 12898. Thus, DNREC should re-notice the hearing and provide details on how it will provide the meaningful public participation (including live comments) required under the Act and relevant regulations. <u>A Valid Public Hearing Under The Law Requires Meaningful Public Engagement</u> The community exposed to pollution from the Delaware City Refinery needs a valid public hearing, as required by law. As COVID-19 makes it unsafe to hold the hearing in person, DNREC must replicate a typical public hearing to the greatest extent possible through a virtual platform. An adequate virtual hearing must assure the public can participate and provide oral comments in real time by phone and video online. However, DNREC has explicitly stated the event it is holding will not allow this. DNREC's notice states that "live comments will not be accepted during the virtual hearing."4 Not providing an opportunity for the public to speak denies the opportunity for a	Following the conclusion of the public hearing and the closing of the public comment period the Division of Air Quality (AQ) prepares this Technical Response Memorandum for the Hearing Officer. This memo responds to technical comments submitted during the initial public notice period, the public hearing comment period, and the 15-day facility comment period. Technical comments are those that are related to the facility, and its units as they relate to the air permit and relevant state and federal air regulations. Comments submitted regarding the format of the public hearing and its exclusion of live oral comments during the hearing are administrative concerns and are not technical in nature and will not be addressed in this Technical Response Memorandum prepared by AQ. Instead, this and other administrative concerns, as appropriate, will be addressed in the Hearing Officer's Report and Secretary's Order.

valid public hearing, and is a violation of Title V and contrary to core principles of environmental justice. 5 Further, studies have shown that air pollution exacerbates cases of COVID-19, resulting in an increase of deaths around the country, including in Delaware.6 Therefore, DNREC must ensure that communities and individuals affected by DCRC's pollution have a say in the permitting decision directly affecting their quality of life. a. Title V of the Clean Air Act and its implementing regulations require DNREC to provide an opportunity for the public to be heard. b. Executive Order 12898 and principles of environmental justice require a meaningful opportunity for public participation during DNREC permitting decision. c. COVID-19 does not give DNREC the right to depart from public participation requirements. d. DNREC can provide no legal or rational justification for refusing the public the ability to participate during the hearing. During a global pandemic that targets the respiratory system, assuring healthy air quality for Delaware residents has paramount importance. This permit decision is an essential moment for DNREC to assure adequate health protection for the community near the Delaware City Refinery. DNREC must fulfill its legal and moral responsibility to protect individuals from harm resulting from pollution and to hear each Delaware resident's concerns and not cut out community voices. Thus, DNREC should provide advance public notice that it will hold a valid, virtual hearing that allows community members to listen, ask questions, speak, and offer oral comments by phone and video, and thus fully and meaningfully engage in the process. Please contact us to confirm that you will schedule a valid virtual public hearing that includes telephone and videoconference options for the public. DNREC must also provide at least 30 days' public notice in advance of this hearing, with information for the public on how to register to be able to provide comment orally by telephone and video.	

KENNETH T. KRISTL, ESQ., Comment 1. DNREC's Public Hearings Without Contemporaneous Oral Public Comment Violate The Governor's 3/12/20 Declaration Of A State of Emergency on COVID-19 On March 12, 2020, Governor Carney issued his *Declaration Of A State of Emergency For The State Of Delaware Due To A Public Health Threat* (the "3/12/20 Order"). The Order has (so far) been extended four different times, the most recent of which was on July 6, 2020. Thus, the Order was in effect at the time of the July 14, 2020 public hearing in this Docket. Paragraph 5 of the 3/12/20 Order states in pertinent part: As of Friday, March 13, 2020 at 8:00 a.m. E.S.T., all public meetings of executive branch public bodies governed by 29 Del. C. §§ 10001 et. seq. (including boards, commissions, task forces, and any other similar public body) may be conducted electronically, either by means of telephone conference call or video-conference call. The technology used must permit members of the public body to hear the comments of and speak to all those participating, and members of the public to hear the comments of and speak to such members of the public body contemporaneously. In the 23 modifications of the 3/12/20 Order, these contents of paragraph 5 have not been altered, removed, or superseded. The Twentieth Modification (issued 5/31/20), did allow "public meetings of public bodies governed by 29 Del. C. §§ 10001 et. seq. (including boards, commissions, task forces, and any other similar public body)" to be held in person in public buildings (with safe social distancing), but specifically "encouraged" public bodies "to conduct meetings electronically, either by means of telephone conference call or video conference call, as permitted by Paragraph 5 of the Declaration of the State of Emergency." (Twentieth Modification ¶ E.1). The Twentieth Modification explicitly states that *"This Order has the force and effect of law. Any failure to comply with the provisions contained in a Declaration of a State of Emergency or any modification to a Declaration of the State of Emergency may constitute a criminal offense."*	Following the conclusion of the public hearing and the closing of the public comment period the Division of Air Quality (AQ) prepares this Technical Response Memorandum for the Hearing Officer. This memo responds to technical comments submitted during the initial public notice period, the public hearing comment period, and the 15-day facility comment period. Technical comments are those that are related to the facility, and its units as they relate to the air permit and relevant state and federal air regulations. Comments submitted regarding the format of the public hearing and its exclusion of live oral comments during the hearing are administrative concerns and are not technical in nature and will not be addressed in this Technical Response Memorandum prepared by AQ. Instead, this and other administrative concerns, as appropriate, will be addressed in the Hearing Officer's Report and Secretary's Order.

DNREC is a "public body" governed by 29 Del. C. §§ 10001 *et. seq*. DNREC is subject to, and for many years has acted in response to, the FOIA requirements in that Chapter. Separate and apart from this concession by DNREC's actions, hearings conducted by DNREC via a Hearing Officer fit the definitions of the Chapter. DNREC is a "public body," defined in 29 Del. C. § 10002(h) as "Public body" means, unless specifically excluded, any regulatory, administrative, advisory, executive, appointive or legislative body of the State, or of any political subdivision of the State, including, but not limited to, any board, bureau, commission, department, agency, committee, ad hoc committee, special committee, temporary committee, advisory board and committee, subcommittee, legislative committee, association, group, panel, council or any other entity or body established by an act of the General Assembly of the State, or established by any body established by the General Assembly of the State, or appointed by any body or public official of the State or otherwise empowered by any state governmental entity, which: (1) Is supported in whole or in part by any public funds; or (2) Expends or disburses any public funds, including grants, gifts or other similar disbursals and distributions; or (3) Is impliedly or specifically charged by any other public official, body, or agency to advise or to make reports, investigations or recommendations. Hearing Officers—who are "appointed" by the Secretary (a "public official of the State") to produce a Hearing Officer Report and a Recommendation on pending permit applications—specifically fall within sub-¶ 3. A public hearing held by a Hearing Officer on a permit application falls within the definition of "meeting," defined in 29 Del. C. § 10002(g) as "Meeting" means the formal or informal gathering of a quorum of the members of any public body for the purpose of discussing or taking action on public business either in person or by video-conferencing.	

A public hearing on a permit application involves both "discussion" of DNREC's business of reviewing permit applications and "taking action" to meet the public hearing and public comment components of DNREC/s permitting job. Thus, hearings conducted by a DNREC Hearing Officer (appointed by the Secretary of DNREC) are "public meetings" of an "executive branch public bod[y] governed by 29 Del. C. §§ 10001 et. seq." and are therefore subject to the requirements of the 3/12/20 Order. Public hearings on permit applications have been held by DNREC via videoconference since the issuance of the 3/12/20 Order and its extensions. Like the other post-3/12/20 Order DNREC public hearings, the public hearing is the above-captioned Docket did not allow for oral comment during the hearing. This violates the specific requirement of ¶ 5 of the 3/12/20 Order that "[t]he technology used must permit members of the public body to hear the comments of and speak to all those participating, and **members of the public to** hear the comments of and **speak to such members of the public body contemporaneously**" (emphasis supplied). Therefore, the public hearing was in violation of the "law" created by the 3/12/20 Order.	
<u>Comment 2. DNREC's Public Hearings Without Contemporaneous Oral Public Comment Violate Chapter 100 Of Title 29 Of The Delaware Code</u> The Paragraph 5 requirements in the Governor's 3/12/20 Order did not appear out of thin air. 29 Del. C. § 10006 allows for public meetings to be held via video-conferencing under certain conditions, and states in relevant part: During meetings where video-conferencing is used, each member must be identified, **all participants shall be able to communicate with each other at the same time**, and members of the public attending at the noticed public location or locations of the meeting must be able to hear and view the communication among all members of the public body participating by video-conference. (emphasis supplied). As noted above, DNREC public hearings on permits fall within the purview of Chapter 100. The failure of DNREC to allow members of the public to speak and submit oral comments	Comments submitted regarding the format of the public hearing and its exclusion of live oral comments during the hearing are administrative concerns and are not technical in nature and will not be addressed in this Technical Response Memorandum prepared by AQ. Instead, this and other administrative concerns, as appropriate, will be addressed in the Hearing Officer's Report and Secretary's Order.

at its video conference public hearings—including the public hearing in the above-listed Docket—means that the public hearing was held in violation of 29 Del. C. § 10006.	
Comment 3. DNREC's Public Hearings on Air Permits Without Contemporaneous Oral Public Comment Violate DNREC's Regulations DNREC has issued Regulations governing the Public Participation component of its issuance of air permits. 7 Del. Admin. C. 1102 § 12.2 specifically states that "[u]pon receipt of ... a permit application, in proper form, the Department shall provide for public participation and comment by . . . 12.2.4 Holding, if the Department receives a meritorious request for a hearing within 15 calendar days of the date of the advertisement described in 12.2.2 of this regulation, or if the Department deems it to be in the best interest of the State to do so, a public hearing on an application **for interested persons to appear and submit written or oral comments** on the air quality impact of the proposed action. (emphasis added). Thus, by DNREC's own regulations, when a public hearing is held on an application for an air permit, interested persons must be allowed to appear and submit oral comments. Delaware law holds that "once an agency adopts regulations governing how it handles its procedures, the agency must follow them. If the agency does not, then the action taken by the agency is invalid." *Hanson v. Delaware State Public Integrity Com'n*, 2012 WL 3860732 (Super. Ct. Aug. 30, 2012), *citing Dugan v. Delaware Harness Racing Commission,* 752 A.2d 529 (Del.2000); *Mumford & Miller Concrete, Inc. v. Dept of Labor*, 2011 WL 2083940 at *6 (Super. Ct. April 19, 2011) (same). Thus, the very language of 7 Del. Admin. C. 1102 § 12.2.4 requires that DNREC provide an opportunity for oral comment at a public hearing on an air permit application. DNREC's conduct of public hearings on air permit applications without allowing for members of the public to make oral comment during the hearing means that DNREC is violating its own	Comments submitted regarding the format of the public hearing and its exclusion of live oral comments during the hearing are administrative concerns and are not technical in nature and will not be addressed in this Technical Response Memorandum prepared by AQ. Instead, this and other administrative concerns, as appropriate, will be addressed in the Hearing Officer's Report and Secretary's Order.

regulations, and any permit issued despite such violation is invalid and subject to reversal. Thus, the public hearing in the above-referenced Docket was invalid and any permit issued relying on it will be subject to reversal.	
Comment 4. DNREC's Public Hearings Without Contemporaneous Oral Public Comment Violates The Governor's Proclamation No. 17-3292 In addition to the 3/12/20 Order referenced in my previous Comment No. 1, the Governor and Lt. Governor also issued a Proclamation specifically governing the conduct of public meetings by State public bodies. The six paragraphs of the Declaration largely mirror the requirements in ¶ 5 of the 3/12/20 Order. Paragraph 6 of the Declaration imposes the additional requirement that "all other rules and procedures applicable to public meetings shall be followed." The public hearing in the above-listed docket did not comply with the requirement of ¶ 2 of the Declaration that the technology used "must permit members of the public to hear the comments of **and speak to** such members of the public body contemporaneously" and that "[p]ublic participants must also be permitted to . . . **submit questions or comments**" (emphasis supplied). The public hearing therefore violated the Governor's Declaration as well. A copy of the Governor's Declaration is attached to these comments so that it is part of the public record. Comment 5. Documents Attached To Be Part Of The Record Although they are public records and should already be before the Secretary (as they govern and affect his conduct), out of an abundance of caution, I am attaching a copy of the 3/12/20 Order, the Twentieth Modification of that Order, and the Fourth Extension of that Order so that they are clearly part of the record in this Docket.	Comments submitted regarding the format of the public hearing and its exclusion of live oral comments during the hearing are administrative concerns and are not technical in nature and will not be addressed in this Technical Response Memorandum prepared by AQ. Instead, this and other administrative concerns, as appropriate, will be addressed in the Hearing Officer's Report and Secretary's Order.
BERNARD AUGUST On 14 July 2020 I signed in through the proper password link-up to view video conference meeting on Docket #2020-P-A-0017, Supplemental Public Comments on the Draft Title V Renewal Permit for Delaware City Refining	Following the conclusion of the public hearing and the closing of the public comment period the Division of Air Quality prepares this Technical Response Memorandum for the Hearing Officer.

Company (Permit No. AQM-003/00016 - Part 1 (Renewal 3), Part 2 (Renewal 2), and Part 3 (Renewal 3)). I was deeply alarmed that as a citizen activist that I was not permitted to post commentary about the Draft Title V Renewal Permit during this virtual public hearing. I read the hearing minutes posted by DNREC 16 July 2020… There was no listing of citizens who participated in this virtual public meeting nor any E-notification of the E minutes to the DNREC hearing website to my registered e-mail account. So I have questions?...Why wasn't the meeting procedural protocols following the Governor Carney's virtual meeting decree...A Declaration Of A State of Emergency on COVID-19 On March 12, 2020, Governor Carney issued his Declaration Of A State of Emergency For The State Of Delaware Due To A Public Health Threat (the "3/12/20 Order")….The Order has (so far) been extended four different times, the most recent of which was on July 6, 2020. Thus, the Order was in effect at the time of the July 14, 2020 public hearing in this Docket. ...As stated in a "comments" letter from the DNREC hearing website posting 16, July 2020 from the Environmental & Natural Resources Law Clinic of Widener University's Delaware Law School by Kenneth T. Kristl, Professor of Law and Director (dated 23, July 2020) "Who" was responsible for this violation of our Governor's "3/12/20 Order"? Why did this breach of the "public's trust and integrity" in DNREC occur? How will this gross violation of Governor's "3/12/20 Order" in the middle of this horrid pandemic be rectified?	This memo responds to technical comments submitted during the initial public notice period, the public hearing comment period, and the 15-day facility comment period. Technical comments are those that are related to the facility, and its units as they relate to the air permit and relevant state and federal air regulations. Comments submitted regarding the format of the public hearing and its exclusion of live oral comments during the hearing are administrative concerns and are not technical in nature and will not be addressed in this Technical Response Memorandum prepared by the Division. Instead, this and other administrative concerns, as appropriate, will be addressed in the Hearing Officer's Report and Secretary's Order.
MARK MARTELL The main issue with the refinery is not the refinery itself, it's the regulator. DNREC is a failed agency. It has been knee-capped by the last several Governors more concerned about jobs than about Delaware's environment. DNREC has come down on the side of the refinery management at every turn. Audubon's comments will address the need for better enforcement and better violations	Following the conclusion of the public hearing and the closing of the public comment period the Division of Air Quality prepares this Technical Response Memorandum for the Hearing Officer. Technical comments are those that are related to the facility, and its units as they relate to the air permit and relevant state and federal air regulations.

definitions around incidents and refinery turnaround. What won't be addressed is public confidence in the agency to render any meaningful enforcement or any meaningful dialog around incidents and maintenance steps taken by refinery management to prevent recurrences of operational failures. DNREC has been operating on a permit fine fee schedule that dates back at its roots to the early 1970's, with some refreshing of penalty definitions in the 1990's. What has not changed over time is the fees themselves, the dollars of which were set during the 1970's, almost 50 years ago. Name any government charge to a citizen since the 1970's for penalties or fines and you can rest assured those costs have moved up over time tied to general inflation if not more. Not fines for industry pollution violations unfortunately. Those have remained stagnant. While the agency may point their fingers at the General Assembly, it is clear that, at least publicly, the Agency has not been advocating for heightened financial deterrents for excess pollution to Delaware. To make matters worse, the Agency has even negotiated discounted penalties in several instances, lessening any deterrent actually applied to the polluter, like the refinery. As a result of decades of agency complacency, this refinery has been able to operate with impunity and the population that lives near the refinery suffers the increase in cancer derived therefrom. It would be worthwhile to note that unlike traditional towns built around industrial polluters, the workers have not chosen to live near this facility to any meaningful percentage. A final concern is the current financial status of PBF Energy itself, the parent entity. Their stock price has collapsed and there have been financial questions about their ability to manage cashflow. The company has ceased dividend payments and has sold assets and raised debt to stay afloat during the pandemic. My concern is that this concern over cashflow extends to future maintenance costs, and I am worried that hiccups and accidents may not be managed appropriately. This same concern stems from a prior owner history at the refinery, who was often cited for poor maintenance repairs and upgrades.	This comment is not technical in nature and will not be addressed in this Technical Response Memorandum.

DCRC COMMENTS

The Delaware City Refining Company (DCRC) did not provide comments during the public comment period. Following the public hearing DCRC had a 15-day opportunity to provide comments or respond to comments made after the close of the public hearing record. DCRC provided response comments, dated August 18, 2020, stating generally that "DCRC supports the Draft/Proposed Title V Renewal as written and agrees with DNREC's proposal to issue the permit as final pending EPA approval." DCRC then provided more detailed responses to particular items presented by the public commentors. Since DCRC is generally in agreement with the permit, their comments are not reproduced or responded to in this memorandum.

DISCUSSION

The Division of Air Quality proposes the following changes to the Title V permit in response to comments submitted by the public. For each of the terms below, underlined text indicates an insertion and a strikethrough indicates a deletion.

Crude Unit

Part 2 - Condition c.1.i.D

> The short-term emission standards in conditions (c)(2) through (c)(6) below shall not apply for a period of twenty-four (24) hours from the time that fuel gas flow is started to the heater and for a period of twenty-four (24) hours from the time that black oil charge to the crude unit is stopped.

Part 2 – Condition c.3.i.A

> Except as allowed by Operational Limitation 2.ii.A above, the Owner/Operator shall not burn in any fuel gas combustion device any fuel gas that contains H_2S in excess of 0.1 grain/DSCF on a three-hour rolling average. This condition shall not constitute a "short-term emission standard" for purposes of Part 2 – Condition c.1.i.D.

Part 2 – Condition c.6.i.B

> The leak detection and repair requirements to control fugitive VOC emissions from the Crude Unit shall be in accordance with the requirements in 40 CFR 60, subpart GGG for existing components in light liquid and gaseous service and in accordance with 40 CFR Part 63, Subpart CC for new components in light liquid and gaseous service. The leak detection and repair requirements to control fugitive emissions from the Crude unit shall be in accordance with the Motiva Consent Decree for both new and existing components in light liquid and gaseous service. The referenced LDAR provisions of 40 CFR Part 60 Subpart GGG, Part 63 Subpart CC, and the Motiva Consent Decree shall not constitute "short-term" emission standards for the purposes of Part 2 Condition c.1.i.D of this permit.

The permit incorrectly references APC-95/0784 as the underlying Regulation 1102 permit; this has been corrected to APC-81/0784.

Fluid Coking Unit

Part 2-Condition da.1.i.G

This change clarifies that there are no exemptions from the annual limit; and all emissions from this unit must be included in its annual totals to determine compliance with the permitted annual emission limits and reported in the Emissions Inventory.

> The short-term Emission Standards in Condition 3 – Table 1.da.2 through da.10 below shall not apply during periods of planned start-up and planned shut-down of the FCU provided the planned start-up and shut down event does not exceed 116 hours…

Part 2 – Condition da.5.i.A

> CO emissions from the FCU WGS shall not exceed 500 ppm dry @ 0% O_2 on an hourly average, 200 ppm dry @ 0% O_2 on a rolling 365 day average, and 694.4 TPY. The 365-day average shall not constitute a "short-term standard" for purposes of Part 2 – Condition da.1.i.G.

Part 2 – Condition da.6.i.B

> The leak detection and repair requirements to control fugitive VOC emissions from the FCU shall be in accordance with the requirements in 40 CFR 60, Subpart GGG for existing components in light liquid and gaseous service and in accordance with 40 CFR Part ~~60~~63 subpart CC for new components in light liquid and gaseous service. The leak detection and repair requirements to control fugitive emissions from the FCU shall be in accordance with the Consent Decree for both new and existing components in light liquid and gaseous service. The referenced LDAR provisions of 40 CFR Part 60 Subpart GGG, Part 63 Subpart CC, and the Motiva Consent Decree shall not constitute "short-term" emission standards for the purposes of Part 2 Condition da.1.i.G of this permit.

Part 2 – Condition da.10.i.B

> HAP emission from the FCU from a Group 1 miscellaneous process vent, as defined by 40 CFR 63.641, shall be controlled in accordance with 40 CFR 63.643(b). This emission standard shall not constitute a "short-term emission standard" for purposes of Part 2 – Condition da.1.i.G.

Fluid Catalytic Cracking Unit

Part 2 Condition e.1.i.H

These changes clarify that there are no exemptions from the annual limit; and all emissions from this unit must be included in its annual totals to determine compliance with the permitted annual emission limits and reported in the Emissions Inventory. Additionally, the numbering has been modified to better indicate that the CO and HAP emissions are items 4 after items 1-3 for VOC, PM, and SO_2 respectively.

> The short-term Emission Standards in Condition 3 – Table ~~1.e.4 through e.9~~ 1.e.4.i.B, e.5, e.6, e.8, and e.9 below, ~~with the exception of e.7~~, shall not apply during periods when the FCCU COB is combusting refinery fuel gas only and during periods of planned shut downs and planned start-ups of the FCCU for a period of time not to exceed 80 hours for each planned shut-down and each planned start-up event.

Part 2 – Condition e.1.i.I

Condition (e.1.i.I) is found in the unit-specific Regulation 1102 permit for the FCCU (Permit: APC-82/0981-OPERATION (Amendment 13)(NSPS)(FE)) as Condition 2.4, it is essentially identical to Condition (e.1.i.M). This text was inadvertently directly transcribed into the Title V permit and duplicates the text in Condition M. This condition has been removed.

Part 2-Condition e.8.i.

This change incorporates an annual limit to maintain a continuous emission limit during periods of start-up and shutdown.

Pb emissions from the FCCU WGS+ shall not exceed 4.37 E-04 pounds per thousand pounds of coke burned and 0.14 TPY.

Attachment G – FCCU Turndown Factor

This change updates the terms referenced in this condition from the origination Regulation 1102 permit to the corresponding terms in the Title V permit.

"…During this period (24 hours maximum), the short-term emission limit ~~requirements~~ in Part 2 - Condition ~~2.1.6~~ 3- Table 1.e.5.i.A, the requirements of Part 2 – Condition 3-Table 1.e.5.i.B and 7 DE Admin. Code 1111 shall not apply."

Unplanned startups are not a valid operating scenario, but instead refer to startups that occur directly after an unplanned shutdown. References to this scenario have been removed from Attachment G to avoid confusion.

Formatting corrections haven been made to Attachment G.

Sulfur Recovery Unit

The permit incorrectly references APC-98/0264 as the underlying Regulation 1102 permit; this has been corrected to APC-90/0264.

The permit condition will be clarified by the following:

Part 2 – Condition j.3.i

i. Emission Standard:
   a. The following emission standards shall apply; conditions (i) and (ii) below apply except during startup or shutdown periods.: *[Reference: APC-90/0264(A7)]*
      1. SO_2 emissions shall not exceed 0.025 percent by volume (250 ppm) in each SCOT stack at zero percent oxygen on a dry basis on a twelve-hour rolling average basis; *[Reference: §60.104(a)(i)]*
      2. 122 lb/hour calculated on a 24-hour rolling average basis; and
      3. 535 TPY combined from both SCOT stacks.

Part 2 Condition j.3.ii.A-D

SCENARIO 1: Planned SCOT I and/or SCOT II Shut Down: When either SCOT unit shut down is planned, the stand by SCOT unit shall be brought to a state of readiness for operation before the operating SCOT unit is taken out of service. ~~Within 2 hours after the operating SCOT unit is shutdown,~~ All of the tailgases shall be treated to meet the shutdown

provisions of Condition 3 Table 1 (j.3.i.B). ~~The maximum amount of SO_2 that shall be emitted during this 2-hour period shall not exceed 4.2 tons.~~

SCENARIO 2: Melting and Burnout After Planned Shut Down of SRU I and SRU II: After SRU I or SRU II has been shut down, the off gases resulting from the residual sulfur melting and burnout shall be incinerated before exiting the stack. The melting and burnout procedure shall not exceed 7 days. The maximum amount of SO_2 resulting from this procedure shall not exceed the shutdown provisions of Condition 3 Table 1 (j.3.i.B).

SCENARIO 3: Planned Start Up of SRU I and SRU II: When SRU-I or SRU-II is returned to service the tail gas from the unit being returned to service shall be incinerated until the proper ratio of H_2S:SO_2 in the acid feed gas is attained. This ratio shall be established within 2 hours. ~~at which time~~ The tail gas shall meet the startup provisions of Condition 3 Table 1 (j.3.i.B).

SCENARIO 4: Burnout of SCOT Reactor During Shutdown of Either SCOT Unit: After the planned shut down of either SCOT I or II, in order to save the catalyst, it can be slowly burned free of sulfur. SO_2 emissions from this operation shall meet the shutdown provisions of Condition 3 Table 1 (j.3.i.B), and shall not exceed a 6 day period.

Boilers
Part 3 – Condition a.5.iii.C

Boilers 80-2, 3, 4 shall meet the annual tune-up requirement of 40 CFR Part 63 Subpart DDDDD (§ 63.7540(a)(10)).

Inadvertently overlooked references to the decommissioned Boiler 1 have been removed.

RECOMMENDATIONS
The Division of Air Quality (AQ) has prepared the revised "Proposed" Permits for the Delaware City's Refining Company Title V Permit **AQM-003/00016 – Part 1 (Renewal 3), Part 2 (Renewal 2), and Part 3 (Renewal 3)** for the Department's review of comments, findings, and suggestions. AQ recommends submitting the attached permit and this technical reference memorandum as part of the hearing record.

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